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Painless Childbirth: A Letter and an Answer

AN EDITORIAL which appeared in the July number of CLINICAL MEDICINE elicited the following anonymous letter, postmarked New York City. Ordinarily we do not print unsigned letters, but this one was of so much interest to us, and so plainly written from the heart, that in this instance we make an exception, in the hope that our comment may come to the attention of "A Humane Woman," whose point of view is doubtless that of many other women.

Editor, THE AMERICAN JOURNAL OF CLINICAL MEDICINE, Chicago, Ill.

DEAR SIR: The spirit of the editorial in the July number of THE AMERICAN JOURNAL OF CLINICAL MEDICINE on "Painless Childbirth: A Wonderful Discovery" surprises me greatly, and almost causes one to believe that there are more physicians than the one referred to in *McClure's*, who acknowledged that he had no interest in the "twilight sleep" as he experienced pleasure in seeing a strong normal woman in the throes of childbirth with her first child.

If this method has been known for some years, as stated, *why* have not physicians used it in this country, in private practice as well as in maternity and lying-in hospitals? It seems clear that the medical profession needed just what *McClure's* has given them stamped with Germany's label, to bring to the front the fact that the method can be successfully applied here.

I have always had a deep respect for the medical profession, who, to me "went about doing good" quietly and without ostentation, but if they have held back a method which relieves pain, and keeps women happy and contented and without dread during the most trying period of their lives, why should they criticise Germany for scoring one in getting ahead of America? If it has not been withheld through indifference to physical suffering, will the editor please state the cause?

Since anesthetics have made possible great operations without the patient being conscious why not the "twilight sleep" for childbirth?

Yours truly,
A HUMANE WOMAN.

We are obliged to admit that this correspondent raises a very pertinent and searching question of human interest, which the medical profession cannot ignore. It transcends the formalism of ethical controversy. It is a cry from the heart of suffering womanhood, which urgently demands and irresistibly compels an answer.

So far as we are personally concerned, we do not feel that the reproach touches us. For our part, we have done, as explained in our previous editorial, all that in us lay to promulgate the knowledge and practice of the twilight sleep—not directly to the public, because that is not the function of a medical journal, but among the profession, so far as we have been able to reach and influence it—and we repeat that, through our efforts,

thousands of physicians in this country have been unostentatiously practicing the procedure for the last decade, and many thousands of women have enjoyed painless labor under injections of hyoscine and morphine.

We take it, however, that our correspondent's letter is addressed, through us, to the profession at large, and especially to those leaders of the profession and those agencies of publicity and education in organized medicine which might be presumed to bring so important a matter to the knowledge of the public. To them, we repeat, she puts a searching and compelling question which cannot be evaded.

Why has there been a conspiracy of silence? Nay, it is not even a merely passive attitude of silence; for the editor of *McClure's*, in a communication to us, says, "There seems to be a highly organized opposition in this country to this new treatment," and asks, "Could you inform us as to the reason for this?"

We do not believe that the passive neglect, far less the active opposition, is due, as our correspondent suggests, to deliberate indifference to physical suffering. With the profession at large it has been due to the influence of constituted medical authority, which has persistently and even bitterly opposed the procedure.

In explanation of this attitude on the part of the powers-that-be, we have only to point out that such bitter opposition has always been, and we suppose will continue to be, the early attitude of organized medicine—as, indeed, it is of all constituted authority—toward innovation and progress.

It is safe to say that no real innovation ever originated within the organized constitution of any science or craft. It has always come from some individual, or a nonconforming group of individuals, and pushed its way in the teeth of organized opposition.

In medicine, in particular, it would seem as though this organic opposition to innovations which were on the face of them worthy of adoption has been a factor of great hindrance and embarrassment. And this very branch of medicine of which we are now speaking—midwifery—furnishes a most conspicuous example.

Without doubt the two most epoch-making innovations in the annals of obstetrics were the demonstration of the infectious nature of child-bed fever by Holmes and Semmelweiss, and the application of chloroform anesthesia to labor by Simpson. Yet orthodox medicine abused Holmes and hounded Semmelweiss to a madhouse for his pains, and constituted medical authority set its smug face against Simpson's sacrilegious violation of the primal curse until (God save the mark) *fashion* did what science and common sense failed to do, and the use of chloroform by Queen Victoria in her confinement brought obstetric anesthesia into vogue.

This, we think, is the true explanation of the "highly organized opposition in this country to this new treatment"—to the twilight sleep of hysocine and morphine. It is the natural resistance of an organized body to change. It is what the Greeks called misocainia—the hatred of new ideas, which would wrench us from our fixtures; for to quit our old fixtures, especially if we have sat in them in comfort for a long time, is no easy business, hence we demur, we resist, we even give battle, and, while we may suspect that the new idea is above us, we try to persuade ourselves (laziness and vanity earnestly consenting) that it is below us.

For years organized medicine has been passively and actively resisting this innovation by the momentum of established authority, chiefly with contemptuous disparagement. Can any good thing come out of Nazareth? Suddenly public opinion confronts it with its neglect of an apparently great and beneficent discovery, and demands why it has been neglected and withheld. The great men of medicine are interviewed, and they all, with one accord, resort to the very human expedient of excusing by accusing. Irritably resentful at being found unready and uninformed when questioned about it, they seek to justify themselves by bitterly attacking the innovation itself. "What, *that* dangerous, heinous procedure! No, thank you. We know all about that quackery, and we decline to have anything to do with it."

Of course there is a certain element of danger in the twilight sleep, as there is in every anesthesia. Of course the procedure is not the simple June-holiday matter that the writers in *McClure's* would make it appear. Of course the half-truths about medical subjects exploited in the popular press misinform and mislead the public.

But whose fault is it that they are only half-truths? And is it not much more blameworthy to suppress truth altogether, as organized medicine has done?

We confess we did feel a little sore that a report from Germany should seem necessary to establish, as a matter of vogue, that which

we had labored many years to establish as a scientific procedure—much as Simpson might have felt when Queen Victoria made obstetric anesthesia the fashion. But our impatience was directed against our own profession rather than against the report itself; certainly not against Germany for "scoring one in getting ahead of America." We felt, as our correspondent says, that the medical profession really did need just what *McClure's* has given them, stamped with Germany's label, to wake them up; and it made us a little mortified to think that it should be so.

None of the criticism that we have here indulged in must, of course, be construed as applying to those physicians—chiefly constituting the family of CLINICAL MEDICINE—who have fearlessly and conscientiously availed themselves of this valuable procedure in childbirth, and given aid and comfort thereby to hundreds of their parturient patients. As we explained at the outset, we have been answering, over the shoulders of our own readers, for the great body of organized medicine, which, nevertheless, will ultimately have to answer for itself to the indictment brought against it by our correspondent in the name of humanity.

The imagination of Darwin or Pasteur, for example, is as high and productive a form of imagination as that of Dante or Goethe, or even Shakespeare, if we regard the human uses which result from the exercise of imaginative powers, and mean by human uses not merely meat and drink, clothes and shelter, but also the satisfaction of mental and spiritual needs.—Dr. Charles Eliot.

THE STATUS OF THE HARRISON BILL

The Harrison Antinarcotic Bill is still pending in the United States Senate, all efforts to force it through quickly having failed on account of various temporary yet troublesome obstacles (amendments) introduced at inopportune times. Aside from the amendment introduced by Senator Nelson, others have been proposed by Pomerene, of Ohio, and Lane, of Oregon. It is probable that none of these attempts at revision will receive serious consideration, since every senator understands that to attempt to change the bill now would probably result in its defeat or indefinite postponement—and we believe that every right-minded person is anxious to see it become a law.

The Harrison bill now stands at the head of the calendar. It has been brought up in the Senate several times, and only the pressure of trust legislation, which absorbs the attention of Congress at the present time, prevents its receiving the hour or two of discussion which should result in its immediate passage. The medical profession favors the bill, its only opposition being to the introduction of amendments which would hamper the doctor. We hope that every reader of these lines will use what influence he can command toward securing its prompt and final consideration. Get behind it, but oppose changes that would result in curtailing the reasonable liberty of the physician, thereby rendering his humane work less efficient. Can't we all help?

A LIFE THAT SHOULD HAVE BEEN SAVED

Yesterday a very dear friend of mine received a telegram from Cleveland, bringing the sad news of the death of his nephew, a bright young man, only twenty years of age, the main financial support and the fond hope of a widowed mother. The boy was the secretary of a prominent railroad official and with him was called to all parts of the country. Much of the time he lived with his chief in a private car, which was sidetracked in all sorts of places and naturally drew its supply of water and food from all sorts of sources. It is not to be wondered at that the boy contracted the attack of typhoid fever which finally caused his death.

Theoretically, typhoid fever can be prevented by rigid control of the food and water supplies of the people. There is no doubt that the death-rate has been considerably reduced as a result of the increased attention to public sanitation and private hygiene during the last twenty years; but, in spite of the millions of dollars poured into new water systems, into the hypochlorite treatment of water-supplies, the scientific disposal of sewage, the inspection of milk, and the condemnation of decomposed and contaminated foods, during the last few years the death-rate from this disease has remained almost stationary. Sanitation alone does not seem to be sufficient to solve the problem of prophylaxis.

Fortunately there is one expedient that can be depended upon to prevent typhoid fever; and that is vaccination. By this means the disease has been banished from our army. In many hospitals, where nurses and physicians formerly too often became its victims, it is not now feared by those in attendance. Wherever tried it has proven a dependable

prophylactic. It is almost devoid of danger, and no healthy young adult need experience the slightest fear in submitting to inoculation.

There is not the slightest doubt that if my friend's nephew had received the prophylactic typhoid injections he would be alive today.

Why didn't the boy receive this protection? Who blundered? The blame must be brought to the door of the medical profession, which, as a whole, has failed to grasp the importance of this simple procedure, and has not brought its live-saving value to the attention of the laity with the earnestness and vigor which alone can compel its general adoption.

Certainly every railroad man, every traveling man, every employee of a great corporation located in a community where there are probabilities of contracting typhoid fever should at least be given the opportunity to receive protection—if necessary, at public expense. If an epidemic, however small, breaks out in a city or town it can often be jugulated in its incipency by the use of the bacterin. *There should never be the second case in any home,* provided the doctor is called early enough to anticipate the development of the disease by early inoculation of the members of the household.

We appeal to the readers of CLINICAL MEDICINE to give this subject the earnest consideration it deserves. The typhoid season is now at hand. We can save many useful lives by prompt and energetic action *now.*

When a fellow knows his business he doesn't have to explain to people that he does. It isn't what a man knows but what he thinks he knows that he brags about. Big talk means little knowledge.—George H. Lorimer.

THE GREAT NEED—WORK!

Strolling through a country town, the doctor whom I had come to advise told me the owners of various properties. Finally I remarked that three men seemed to own more than half the town. "They do," replied the Doctor; "they are the only three men in town who work."

Take any town in this country, and the leading doctor is he who works hardest. He reads more books, takes more journals, goes to more society meetings, has more apparatus, and—he makes more money. Besides, he does better work than do any of his colleagues. Furthermore, if public work of any kind is needed, he is the one selected to do it, because, "if he says he'll do it, it will be done."

Ability, learning, pull, all these are subordinate matters—work is the one thing that counts in the long run. A salesman told me that in his early days he would get discouraged if he failed to make a sale during several successive days; and he then felt inclined to sit in the hotel lobby and mope—bad season; poor territory; competitors had business cinched; wasn't cut out for a salesman, and all that. Then he would rouse himself and determine he would "die fighting," and he'd get an order from the next man he tackled. Finally he began keeping an account of the number of hours he devoted to his work each week, and he found that his sales corresponded closely with the number of hours he spent soliciting business.

Somebody once said—and not at all irreverently—that, had the story of Eden been written by a European instead of by an Asiatic, work would not have been represented as an appalling catastrophe, a condign punishment. The bright author of "Angel Island," a serial published in *The American Magazine,* represents the men as languishing and quarreling, until they become interested in work; whereupon they resumed the normal masculine equilibrium.

Doctor, are you working? Doing your best, even a little bit better? Trying to improve yourself? Taking time to read and trying new methods? Keeping up with the times? Making your patients understand that you never lose a chance of bettering your means of treating them? Letting them comprehend that the surplus income you get from them is a public trust, that comes back to them in betterments? Looking after the sanitary conditions of your community? Assuring the functions of public-health advisers as a matter of course? Considering the progress of the community along the lines nobody understands as well as you? Are you studying and recording your cases scientifically, so that you can pass any state-board examination on them? Making laboratory tests of urine, blood, and feces?

If you are doing all this, I need not ask what is your relative standing in your community. You are a useful man, a good citizen, a well-trusted doctor.

Work is a necessity to the physical, mental, and moral well-being of any normal man.

Somebody once criticized me because I asserted there were worse things than war: that the bold young bandits who terrorized the city might be bold young heroes if their country called them to arms. Well, isn't it true?

Take a certain sleepy village—1500 white citizens, and just three men of them working. Take a census of the town, and you will find one hundred able-bodied men that are absolutely useless. Sweep them together into a company and ship them off to the Philippines to civilize the Moros with book, spade or bayonet. Isn't there an atavism, a harking back to the savagery where the men fought and the women did the rest? Surely. And a good way to cure such atavistic developments is to give them some fighting to do. Believe me, plenty of these idlers would find a hoe less to be dreaded than a Moro with bolo attachment.

With some men this instinct is real, and they are what all men were once—fighters. Let them fight. The world is not yet ready for universal peace. There are wrongs to be righted: lusty, strong-hearted fighters are needed badly. There is the arch-enemy, the old dragon, the saber-tooth tiger—ignorance—and not half enough champions to do all the slaying he needs. What would the world do without its men of war, its born fighters?

A PRESCRIPTION: BEE STINGS

Every year, at least once, the journals resurrect the suggestion that bee-stinging is a therapeutic agent of singular efficacy. Just now I have before me a cutting from *The Chicago Daily News*, giving some interesting data. Quoting from *London Tid-Bits*, doctors are getting wonderful cures of rheumatism and sciatica by having the patients stung. People over eighty years of age have been thus cured of rheumatism.

The explanatory hypothesis is, the presence of formic acid in the venom, and this acid is declared to be the best antidote for the poisons that stiffen joints and muscles. As this stiffness is largely owing to the hyperplasia of connective tissue that gradually advances with the years of active muscular exertion, formic acid must exert a remarkable solvent influence over this tissue.

But the astute news reporter doesn't stand still, by no manner of means; his imagination is still working, and this year he has added a few further marvels to the annual edition of the marvelous tale of the busy bee. No less a problem than inebriety is subjected to this magic apiary solvent. "Five men were being treated in a London hospital for rheumatism. Four of them were seasoned drinkers, the fifth a confirmed drunkard. Bee stings cured all five of rheumatism, and they destroyed the desire for alcohol as well. Even the sight of drink nauseated these quondam topers, and several months after leaving the hospital not one had again touched liquor. Later observations showed that a bee sting quickly sobered an intoxicated person, and also that when drinking men begin working with bees such persons soon lost their craving for alcohol."

All of which is very important—if true. The name of the hospital is judiciously suppressed; and the whole story is doubtless a newspaper yarn. Still, it has its good points. The cure should appeal to the women. With what keen enjoyment the wife of a sot would appreciate the application of a peck of bees to her inebriated liege lord. The extra-stinging kind, please!

℞

Bumbles.....congius ss (principium)
Hornets.....octarius j (adjuvans)
Wasps.....octarius ss (corrigens)
Honey-bees .....octarius jss (excipiens)

Misce. Signa: To be well shaken, then apply briskly.

Is there anything in it? Possibly. Probably not. We recollect reading some years ago of a trial in which the patient, after receiving more than 6000 stings, decided that no benefit had accrued. Yet, the Homeopathists assert that they get good results from the gastric administration of apis mel, and excellent practicians of other schools corroborate these claims.

If, perchance, any reader wishes to try the bee treatment, he should, by all means, obtain the patient's consent first, and a waiver as well. This writer once prescribed for an old rheumatic woman a liniment to which he incautiously added some essential oil of mustard. To make sure of its efficacy, a good deal was added.

The thing cured her. At our next visit, the woman wasn't noticeably rheumatic. We were young then and fleet of foot—really, some sprinter; but we barely reached our carriage in advance of that old dame and her broom. The cure was permanent, too. At least, we have never visited the locality since!

EMETINE DEVELOPMENTS

The enthusiasm developing over the discovery of the curative power of emetine in amebic dysentery may, we trust, lead to two steps further.

One is the thorough testing of other active principles in the maladies for which the parent plants have been advocated. While much of this work has been done by Burg-

graeve and his successors, the field is by no means harvested. Many alkaloids are as yet known only to the chemist and have received no attention from the clinician.

The other step is the application of emetine in other maladies. Beside its powers in dysentery and its application in pulmonary and bronchial affections, emetine is attracting attention as a remedy of surprising efficacy for pulmonary and other hemorrhages.

The next application may well be a trial of this potent alkaloid in alcoholism. Treating a drunkard, on the verge of delirium tremens and craving drink incessantly, Doctor Waugh gave the man a full dose of emetine. Within five minutes the patient was asleep. he slept eight hours, and awoke free from the craving for alcohol, his nerves steady, his appetite restored, ready to eat his breakfast and go to his business. Two spinach-colored stools showed the effective cholagog action.

As an eliminant it limits the field for calomel, anciently known as panchymagogus quercetanus, for its power of acting on all the depurating apparatus at once.

The two alkaloids of ipecac ought to exchange names, since cephaeline is the more effective as an emetic, while the chief uses of emetine depend upon its emetic action being avoided. Cephaeline is said to be more acrid and irritating, but the writer's tests of the two, made with emetine and cephaeline of undoubted purity, showed a similarity of action much closer than the books aver.

They ain't no use in kickin', friend, if things don't come your way;
It does no good to holler 'round, an' grumble night an' day.
The thing to do 's to curb yer grief, cut out your little whine,
An' when they ask you how you are, jest say:
"I'm feelin' fine."

Yer heart may be jest bustin' with some real or fancied woe,
But if you smile, the other folks ain't very apt to know.
The old world laughs at heartaches, friend, be they your own or mine;
So when they ask you how you are, jest say:
"I'm feelin' fine."

—Farm and Home.

MUST WE ANSWER CALLS?

Dr. D. Winton Dunn, of Duquoin, Illinois, refused to visit a sick child, because the father had not paid his last indebtedness to him. The father shot Doctor Dunn dead.

So many angles has such a case that nobody not conversant with the circumstances can form a just judgment of it. Was there justice in the man's refusal to pay or was it because poverty rendered payment impossible? Was no other doctor available? Was it a case of life or death?

"Judge not, that ye be not judged." Do not too hastily condemn even a murderer, not knowing just why he took another's life.

Nevertheless, it does seem as if a doctor should have some protection. Everybody who has any dealings with the doctor charges him the limit. Everybody who engages the doctor's services goes the limit in deferring or evading payment, while such consideration as, for instance, not asking him to make calls at undue hours, before the doctor starts upon his regular daily round, or their needlessly molesting him outside of his office-hours, or studying to save him any other unnecessary trouble is one of the rarest of experiences in a practitioner's life. This is the way it goes:

Tom's wife is sick. Tom philosophically concludes she'll be better soon; he goes to his work past the doctor's office, comes home at dusk, to find her worse; eats his supper, smokes his pipe, then when sufficiently rested he pulls on his boots and goes for the doctor. When the bill comes, the man puts it aside; the regular living-expenses take nearly all his wages, and there have been extras; each time a little is saved there comes a whole host of needs—clothes, outing—and by and by that doctor's bill is forgotten. A man always has a choice of places to put in an extra ten; but, that is not reason enough for him to go gunning for the doctor when that long-suffering man at last rebels against the imposition and refuses his services.

There is something repugnant to humanity in a physician's refusal to go to the aid of anyone sick, of a sick child—but, Great God! did you ever try to realize what a frightful thing it is to be a doctor and to be unable to collect enough to pay for your living? Getting shabby; credit exhausted; professional material needed to do your professional duty; family-needs multiplying! We, most of us, know the story. It has driven men whose every fiber responds to the call of suffering, out of the active work of the profession.

And all this evil is, because we cling to the obsolete, archaic, absurd, flatly impossible fee-system.

Wake up! this is not the day when the doctor was an ordained priest and subsisted upon the offerings left at the temple of the gods. This is today; this is the day of science, of preventive medicine; it is the day when every human being has so much of duty pressing down upon him that he can not

afford to be ill. All that is needed is, simply so to alter our financial relations with the public as to adjust it with the customs and conditions now prevailing.

Let each family subscribe its yearly salary to the doctor, and then let him do his level best to keep them from getting sick. That's all.

What I object to is whin I pay tin or fifteen cents f'r a magazine expectin' to spind me evenin' improvin' me mind with th' latest thoughts in advertisin', to find more thin a quarter o' th' whole book devoted to lithrachoor.
—Mr. Dooley.

THE CONNECTION BETWEEN PELLAGRA AND VITAMIN

Now vitamin—that principle of food-plants of late acquiring such great prominence in biology, and first coming under notice in connection with beriberi—is being associated with that other obscure and mystifying malady, pellagra. Pellagra, it now is confidently asserted, can be cured, in its not too far advanced stages, merely by supplying foodstuffs rich in vitamin; and, further, the same diet possibly will obviate its appearance. This is the startling assertion of Casimir Funk, director of the department of physiologic chemistry of the Cancer Hospital Research Institute of London, as laid down in a contribution to the *Muenchener Medizinische Wochenschrift* of March 31. This is Funk's simple formula for the prophylaxis and the cure of pellagra, viz.:

In order that pellagra may not develop, it is necessary that only maize be eaten that has suffered absolutely no loss of substance of the kernel in its manipulation in preparing for food. In other words, none of the vitamin of the Indian corn must be removed by milling or otherwise. This injunction presupposes that a given family confines its dietary exclusively or largely to maize preparations, as in Italy and our southern states. However, whatever the general dietary may be, it must include articles rich in vitamin, more especially potatoes and garden-vegetables, the latter preferably uncooked. In this connection, Funk advises the popularizing of the potato (urging its culture or its admission, duty-free, to regions where maize is the staple), pointing out that pellagra is unknown in potato-zones.

The therapy is represented as equally simple, being the same as set down for prophylaxis; of course, provided the patient is not too far run down.

Ordinarily, the diet should be a generous mixed one, including plenty of fresh fruit, vegetables of all kind, meat, milk, butter, and, for carbohydrate, potatoes preferably. In advanced cases, fresh fruit-juices, vegetable soups, raw or merely boiled-up milk, and meat-juice and bouillon, liberally, are recommended. Medicinal agents would be, yeast and codliver-oil, both of which contain considerable vitamin. The oil has been prescribed, with success, by Nightingale.

Vitamin, it may be well to explain here, is a chemical body first isolated by Casimir Funk, of the Lister Institute of Preventive Medicine (London) and announced in 1911. (See *Trans. Soc. Trop. Med. a. Hyg.*, 1911, p. 86; *Jour. of Physiol.*, 1911, p. 395, and 1912, p. 75; *Lancet*, 1911, p. 1266; *Jour. State Med.*, June, 1912.) It is a basic substance of the order of the pyrimidine bases, and allied to uracil and thymine, and is believed to be a constituent of nucleic acid. It, forms colorless acidular crystals soluble in water. This principle has been isolated from the hulls of rice and maize, from potatoes, the legumes, yeast, milk, brain-substance, besides being present in numerous vegetables and fruits.

Funk, who has been devoting considerable attention to this and related problems for several years (as in part indicated by the bibliography just cited), considers the pellagra-question as now in the same stage in which that of beriberi was a dozen years ago —numerous theories are formulated, with the toxic and the infectious in the lead, the malady meanwhile spreading apace, but little, if any, energetic efforts at prophylaxis undertaken; the death rate, in the United States alone being put down at 40 to 50 percent, with 20,000 deaths in the period of 1907—'12. Then, asks this writer, shall we wait until our investigators have agreed upon the nature of this grave malady, or may we not already determine upon active preventive measures, based upon facts within our knowledge?

The key to the pellagra-problem, we are told, is found in the discoveries regarding beriberi: the conditions under which these two diseases appear are analogous. Indeed Funk has formulated a definite conception concerning four vexing trophic disturbances—beriberi, scurvy, rickets, and pellagra—and has coined for this group the expressive collective term "avitaminoses"; which is to say, pathologic states determined by depriving the organism of its needful vitamin. Another, more general, name he bestows upon this group is, "deficiency diseases." (Cf. the

brochure "Die Vitamine, ihre Dedeutung fuer die Physiologie und Pathologie, mit Berueck-sichtigung der Avitaminosen." Publisher: J. F. Bergmann, Wiesbaden.)

Immediately under the outer layer (the "skin") of rice, wheat, and Indian corn, there lies the stratum of aleurone cells, and this latter stratum, besides being rich in proteins, fat, and the mineral salts, carries the quite recently discovered vitamin—the basic, pyrimidinic principle vital to the plant already defined. The *starchy* portion of the grain does *not* contain any vitamin.

As to the connection subsisting between polished (and consequently vitamin-free) rice and beriberi, that is too well understood at present to call for further words; suffice that persons subsisting largely upon polished rice (or, also, upon sago or bolted-wheat bread) are liable to be attacked by beriberi, while feeding the rice-bran to these patients or reverting to an unpolished rice diet will effect a cure.

Now, according to Funk—who for several years has been a leader in the overthrowing of the toxicogenous origin of beriberi—there is a complete analogy between the etiology of pellagra and beriberi. Indian corn when milled is robbed of its peripheral aleurone layer, and with that of its indispensable vitamin. Then, if this preparation become the predominant article of food, an outbreak of pellagra becomes a probability.

But, how comes it that the malady appears of differing degrees of intensity in different countries; why is it more virulent in the United States than in, say, Italy, where the mortality is placed at round 4 percent, as against 40 to 50 with us? (As a matter of fact, it is now known to be much less than this in America—possibly 15 to 20 percent.)

For this puzzling fact Funk also offers a simple explanation ; namely: the extent of milling the corn varies with the localities, and is the most thorough in our own country. This has been proven by testing comparatively the corn-meals from various countries. Conversely, it is asserted by the author that bran of Indian corn, which is largely utilized as feed for live-stock, is known to augment the yield of milk. Incidentally he expresses the hope that collective observations as to the foregoing phase may settle this part of the problem.

In this connection, one other pertinent and applicable observation is here pointed out; namely: the greater the relative amount of rice poor in vitamin habitually consumed by an individual, the earlier the signs of beriberi will make their appearance. Consequently, the proportion of vitamin-free maize habitually eaten may be of importance. When it is pointed out that pellagra occurs among people (especially in the United States) who enjoy "good food," Funk also finds an answer: While, on the whole, pellagra is a disease of poverty (85 percent of cases, in America, being among the poverty-stricken), such well-to-do persons may habitually consume large amounts of decorticated-corn meal, the deficiency of which is not balanced by the other vitamin-bearing items of their fare, such as potatoes, butter, milk, fruit; when they may fall victims despite the "good" table.

Another thing, pellagra can not be a dietary disease. for, it is found also outside of the corn-zones, numerous instances and minor epidemics of this disease being on record where polished rice (and not maize) was the main item of food. But this need not militate against a vitamin-hypothesis, for the reason that, similarly, beriberi sometimes is caused by a diet of sago or white wheat bread. However, accurate statistics as to the exact nature of the complete dietary under the circumstances named are highly desirable, as pointed out by Funk.

While these views advanced by Funk largely are hypothesis, he finds corroboration from various sides; one of these being certain observations, recorded by Nightingale (physician to a large prison in Rhodesia, S. A.), concerning an epidemic of pellagra involving 1210 prisoners. Two kinds of corn-meal were at disposal: one being the whole corn ground in a hand-mill; the other, produced at a steam-mill from the decorticated grain.

The pellagra occurred exclusively in those individuals receiving the milled corn. On the other hand, the whole-grain meal not only did not give rise to the disease, but actually proved positively curative for the victims. This observation was definitely established, since several times the supply of the nonnoxious whole-corn meal gave out, so that the phenomenon repeated itself. No new cases would occur when the latter kind was regularly provided.

True, Nightingale termed the trouble "zeism," not venturing to consider it real pellagra, inasmuch as all the patients were cured, while, further, serious central nervous symptoms did not develop. Nevertheless, Funk is convinced to the contrary, the early change to a vitamin diet doubtless having obviated the graver lesions. Furthermore, in the almost complete absence of vitamin, the disease showed very rapidly—within a

few weeks—hence, the pathologic changes presumably would differ from those of the usual type. The latter cases, of course, come on gradually, chronically; for, under ordinary circumstances, there always enter into the diet smaller amounts of foodstuffs rich in vitamin—naming only potatoes and other vegetables, fruit, milk, and so on. When thus the malady has slowly crept upon the individual, month after month, and the victim becomes aware of his breakdown, many times it is too late to repair the damage to the organi m.

If all that is beginning to be claimed for vitamin, or, rather, charged to its absence from our food, then numerous other interesting applications of the facts involved may be looked for. Thus, for instance, light may be thrown upon the startling spread of chronic maladies, the multiplication of cancer, and tuberculosis. There is little doubt that food is a much more important factor in the etiology of disease than most of us have been willing to admit.

Our old friend, Dr. C. S. Pixley, who has written on pellagra for this journal, lays great stress upon the dietary in this disease. He is convinced that the restriction of the food is the determining cause, and while he believes that protein starvation is the principal factor he has found that improvement almost invariably follows the adoption of a more generous dietary. As to methods of treatment and practical results, therefore, he is not so far at variance with Funk.

The medicinal measures now quite generally adopted, that is, the use of calcium sulphide and intestinal antisepsis, may well be associated with the vitamin-rich diet advocated by Funk. Good results are also said to follow the use of living Bulgarian-bacilli cultures.

We have but one life to live. We cannot make too much of it. The great danger is that we will fall short of what we might attain. But if we are careful to maintain our standards, they will help us to achieve commendable success.—J. M. Watson.

HAS THERAPEUTICS ADVANCED LESS THAN SURGERY?

I am moved by the recently staged bout in Paris to some reflections upon the philosophy of fighting and fighters, as applied to some other matters. The pugillist's ring is not a very refined subject of discussion in these days, it is true; nevertheless, it has always furnished, and still continues to furnish, a great deal of the current philosophy of life and not a little of its popular nomenclature; which is not surprising when we consider that, after all, the ring is the elemental prototype of life.

The particular reflection that is forced upon me just now is that every fighter has his day. That, you say, is a very trite reflection? Granted; however, I have not quite finished. I reflect, further, that the fighter's day really comes to an end before—sometimes a long while before—his rival comes along and puts him to sleep with a knockout blow.

By dint of three or four victories, such a man makes himself the world's champion, and establishes his supremacy in the minds of the ringside fans. Then, perhaps, for a long time no challenger appears, and our champion walks around enjoying his reputation, believing himself still to be a better man than any other one that puts on the gloves, thinking in his heart that nobody ever will subdue him. Even the "fans," in spite of all the warnings of history to the contrary, are hypnotized into believing the same; yes, the very man, in training somewhere, who is destined to whip him, shares the general obsession.

At last some ambitious lad ventures the rash presumption of challenging this champion; a bout is arranged; youth comes leaping into the ring, and the champion is made to take the count. Then suddenly it flashes upon everybody, even upon the defeated erstwhile champion himself, that in reality he has not been the best man for quite a long time. Looking back, one can almost put a finger on the time and place where his physical decadence began, which was bound to culminate in this knockout. And his backers come away from the pay-tables sadder and wiser men—until next time.

Now for the application. For many years, surgery has been cock of the walk. Medicine received its knockout blow in the middle of the nineteenth century when Pasteur and Lister and the rest of that immortal group established the infectious nature of "surgical fever" and showed the way to avoid it. Then it became easier and safer and more directly efficacious to operate than to treat internally; and surgery not only received a miraculous impetus in its own legitimate sphere, but, in the conceit of its new-found license, broke over into the domain of therapeutics and dominated the whole field of medicine.

From that time to this, the surgeon has been the supreme figure in medical practice. He has worn all the honors and received all the emoluments. And, for a while, it may be

frankly admitted, he was entitled to all that he got. For, the surgeon took admirable advantage of his position, and armed himself, so to speak, with modern, smokeless, range-finding weapons, while the internist was still blazing aimlessly away with a blunderbuss. He worked with certainty and exactness and knew his way, so that the patient could entrust himself to him even through the dark valley of chloroform and dissection. He followed a well-defined course and obtained equally well-defined results, such as had never before been known to medicine.

In every bout that surgery had with internal medicine, surgery got the decision, until internal medicine acquired the habit of taking the count, and the public developed a regard almost amounting to infatuation for surgery, and a corresponding indifference almost amounting to skepticism for internal medicine.

So, the challenging in a great measure ceased, and surgery strutted the sawdust, the acknowledged and uncontested champion. To this day, the surgeon holds his high, complacent position by virtue of this reputation. Surgery and its devotees—all but a few of the knowing ones—still fondly imagine that it is supreme.

But, in the meantime, a few "white hopes" in the ranks of internal medicine have quietly and earnestly been training to meet the champion—here and there a Wright and an Abderhalden and an Ehrlich and a Vaughan—and the truth is that surgery already is beaten.

Therapeutics is, at this moment, in advance of surgery. It has taken a leaf out of surgery's book, and has trained with exact methods and definite weapons. The theater already is set for the struggle between medicine and surgery, and surgery is doomed to defeat. Exact biologic medicine will deliver to surgery the knockout blow, just as exact aseptic surgery made medicine take the count fifty years ago.

The day of therapeutics is at hand. Its hour has struck. Already it is taking cases out of the surgeon's hand. It is pushing the surgical index further and further back toward the vanishing point.

I have said, biologic medicine is doing this. I do not mean alone the socalled biologics, the serums and vaccines and hormones, although I mean them too. I do not speak so much of remedies themselves, as of our methods of applying them. And this refers equally to drugs. There never was a time when drugs were used so intelligently and so effectively; and they are being employed more and more on the same rational, biologic principle with serums and vaccines, namely, that of synergizing the offensive and defensive resources of the body itself.

I do not intend to imply, of course, that surgery has lost, or ever will lose—at least not in our day—its place of usefulness. Nay, I am not even suggesting that surgery has lost any ground; on the contrary it is far better and more scientific than it ever was. Its relative status with medicine has changed, that is all. Internal medicine simply has overtaken it and is traveling faster.

The future—at all events for the next half-century—lies with internal medicine. It is time, aye, high time, that the old obsession which still lingers in the minds of the profession and the public by the impetus of past reputation, that surgery and pathology are farther advanced than therapeutics, should be denied and banished. It is no longer true.

Therapeutics has its hat in the ring. In a year or two, the referee will publicly hold up its gloved hand. Do not be fooled by the glamor of the past. Bet your money on therapeutics.

All lies you may avoid but the Lie Direct; and that you may avoid, too, with an If. I knew when seven justices could not take up a quarrel, but when the parties themselves were met, one of them thought but of an If, as "If you said so, then I said so," and they shook hands and swore brothers. Your If is the only peace-maker. Much virtue in If.—Shakespeare.

NUCLEIN IN DEMENTIA PRÆCOX

We regret the lack of space in CLINICAL MEDICINE to give a full report of the meeting of the Alienists and Neurologists held in Chicago under the auspices of the Chicago Medical Society. One of the most interesting of the many interesting problems discussed was, dementia præcox. On Tuesday afternoon, July 14, four papers of special interest to the students of this disease were read; namely: "Dementia Præcox," by Dr. H. A. Lindsay, of Independence, Iowa; "The Abderhalden Test in Dementia Præcox," by Albert E. Sterne, of Indianapolis, Ind.; "Dementia Præcox in the Last Two Years: Diagnosis and Treatment," by Dr. Bayard Holmes, of Chicago; and "The Demonstration of the Abderhalden Test in Dementia præcox," by Dr. Adolph Gehrmann, of Chicago.

There was an exceedingly interesting discussion of these fine papers. While there

was considerable difference of opinion as to the exact diagnostic value of the Abderhalden test, there was general agreement that it was likely to prove of extreme practical value in the diagnosis of early and doubtful cases. Doctor Sterne's review of the literature upon this subject was the most complete that has ever come to our attention and bore witness to the enormous amount of work now being done in this field.

Naturally, we are much interested in the treatment of dementia præcox. While there was considerable difference of opinion as to the value of nuclein, we were struck by the apparent fact that those who had the largest experience with the remedy had the most faith in it. Practically all admitted that decided amelioration often, if not generally, follows its use. Probably a majority were of the opinion that the benefit secured was not permanent, although several reported what seemed to be clinical cures.

One of the most interesting contributions to the discussion was that by Doctor Sawyer, of Marion, Ohio, who gave his experience with nuclein, first alone and later combined with other remedies in the Lundvall solution (described in a previous issue). Doctor Sawyer has been struck by the rapidity with which the acute mental disturbance of dementia præcox often clears up after the administration of a dose of this remedy. He has seen a complete change in the mental condition a few hours after the injection. In one case in which this remedy was employed, there seemed to be a cure, the patient some time ago being discharged apparently well and having remained mentally sound thus far. Out of eight persons treated with nuclein, six have responded favorably.

The alienists present at this meeting generally showed great interest in these reports, and there is good reason to believe that nuclein will be given a generous trial in many institutions for the insane during the next few months. We shall watch the reports with intense interest.

BUGS AND FLIES: THE RUIN THEY WORK

I detest a fly. I abominate a roach, and loathe a bug. A few years ago a jocular friend, observing the assiduity with which I wielded the then-novel fly-swatter, remarked that my epitaph should be: "He flew high, and swatted the fly."

Well, as usual, the world is trailing along about twenty years after us, and the dangers of insect infection are beginning to be appreciated. Now comes Doctor Nelson Du Val Brecht, late of the United States Public Health Service, with a heavy indictment of the bug.

Sixteen orders of insects, Doctor Brecht writes in *The Washington Star*, contribute to torment mankind; in addition to the vermin, which include rats, mice, bats, ticks, spiders, and so on. One of the most vital problems today is, how to deal with these pests. It is estimated that the fly costs the United States annually $350,000,000 and 170,000,000 years of human life! The annual loss from tuberculosis is 50 million dollars; from typhoid fever, 70 millions; from intestinal diseases, 97 millions.

The yellow-fever epidemic of 1878 cost the Mississippi Valley 15 millions; but each year the cottonball weevil takes 108 million dollars from the pockets of Alabama, Georgia, Tennessee, and Florida. Fifty-one counties in the South contributed 3½ millions' worth of cattle to feed ticks. In 1874, locusts grafted 40 millions from Wyoming, Montana, and the Dakotas. The ox-warble fly takes 20 millions a year. Summing up, we Americans lose on our crops 520 million dollars a year through insect pests.

The female bedbug transmits to her victims relapsing fever, bubonic plague, kala-azar, smallpox, typhoid fever, infantile paralysis, tuberculosis, leprosy, and probably other diseases also.

The cockroach carries typhoid fever, bubonic plague, and possibly cancer. Typhus is spread by body-lice; Rocky-Mountain spotted-fever, by infected ticks; bubonic plague, by the flea; the sleeping-sickness of Africa, by the tsetse fly. Sambon asserts that in Egypt pellagra is transmitted by sand-flies; surra, a cattle disease of the far East, comes through the stable-fly; Texas cattle-fever is transmitted by infected ticks while the nagana of the Pampas and dourine of Mediterranean coasts are carried by varieties of the glossina, of which the tsetse is one.

Ants are sometimes venomous and some varieties destructive to woodwork. The potato-tuber moth has joined the potato-bug in assaulting Paddy's standby. The timber-beetle destroys as much timber as forest fires burn. The green wheat-fly, alfalfa-weevil, locust-leaf blight, fruit-fly, browntail moth, gadfly, current- and mustard-mites, gipsy-moth, oilfly, wasp, caterpillar, and innumerable other insects take heavy tolls from civilization. The codling moth and

San Jose scale are to be repelled only when the different states join forces for organized warfare against them.

Added to all of this, hawks and coyotes take our chickens and render it impossible to raise geese, ducks or turkeys in some sections. Ground-squirrels go along the rows of corn and dig up every grain. Rabbits debark and kill the fruit-trees.

And of all the forms of animal life that prey on man, from the tiger to the cobra and on down to the tiniest protozoon and bacillus, the common housefly is most deadly.

We are literally eaten up by flies.

Swat the fly! Set traps outside for him; feed him to the chickens; screen your house. Cover up all manure in which the she-fly breeds.

Again I say—Swat (or otherwise eliminate) the fly!

And my dream is this, that as the years go on and the world knows more and more of America, it also will bring out this fountain of youth and renewal; that it will also turn to America for those moral inspirations that lie at the base of human freedom; that it will never fear America unless it finds itself engaged in some enterprise nconsistent with the rights of humanity; that America ill come to that day when all shall know she puts human ghts above all other rights and that her flag is the flag not only of America, but the flag of humanity.

—Woodrow Wilson.

EDUCATIONAL FREEDOM

There is still enough of the spirit of priestcraft about medicine to remind us that the priest and the physician originally came from the same stem; that is to say, this spirit still lingers about the art of medicine. For, in these latter days medicine has undergone a distinct split: part has become a science, and a decidedly inductive science at that; part remains an art.

So far as it follows the career of a science, of course, medicine is absolutely democratic, nonsectarian, openminded, welcoming truth from whatever source it may come, arguing only to impart light or to receive it. In its capacity as an art and craft, to be sure, it has been greatly influenced by the scientific element, and is a hundred times more liberal, tolerant, openminded than it formerly was. But around this phase of medicine there still lingers enough of the medieval sacerdotalism to hinder its progress from keeping pace with the other.

There still persists a disposition on the part of the powers that be, as with the priesthood of the middle ages, to maintain the closed book, or at least to permit only their own censored portions and their own inspired interpretations to be dealt out. True, it is not called priestcraft in these days, but paternalism. But, paternalism, stripped of its euphonism, usually turns out to be either political despotism or religious tyranny. It is for the good of the order and for the public protection. To be sure, that was the plea of the medieval priesthood, and it has been the plea of all religious and political assumption in all ages. There is no compulsion or restraint laid upon the modern physician, either in his beliefs or in his conduct. Ostensibly, no; but, actually, his therapeutic course is rigidly prescribed and proscribed for him by constituted authority, and wo be to him who transcends the prescribed course or trespasses upon the proscribed one. If any man shall add unto these things, the powers that be shall add unto him the plagues that are written therein; and, if any man shall take away from the words of the book of their prophecy, they shall take away his part out of the book of life.

Especially is this sacerdotal censorship and proscription exercised anent the educational aspects of medicine, at the gateways of the profession, in the schools where young men and women are being trained for medical practice. Naturally. Priestcraft knows its business, and thoroughly understands that if it can catch and mold the receptive mind of the novitiate the full order may safely be trusted to follow its leaders. So, it carefully and rigidly formulates—does this present-day medical priestcraft—the metes and bounds of therapeutic teaching to be observed in medical schools, and sharply limits them with the peremptory dictum, "thus far shalt thou go, and no further."

That is to say, it tries to do so. Happily for medicine, this is not the middle ages, but the twentieth century, whose public conscience has awakened to the fact that the only effective way to the best and highest efficiency, both in thought and in conduct, is through mental and moral freedom.

To open the mind to everything that holds the promise of value and helpfulness; to hear all, to weigh all; to exercise an unbiased judgment, neither rejecting the good because it is old nor refusing it because it is new; above all, to do all this discriminating with one's own untrammeled mind and in fair view of all the premises—these are the twentieth-century ideals of education and training, in whatever line, to make for progress and efficiency. And, in spite of the efforts of the

medical hierarchy to restrict and prohibit educational freedom, these are the principles which will prevail in the schools of today, and of tomorrow, and of the day after tomorrow.

But, say our hierarchical friends, these young, untutored minds are not capable of discriminating between the good and the bad, the false and the true. They must be led and guided and their judgments "formed."

Again the cry of the old religious priestcraft! A specious and misleading argument, to which every canon and method of modern education gives the lie.

How shall judgments ripen at all, how shall progress come, if minds in their formative period are crushed into a mold, and released only when they have set into unchangeable forms?

It is true the young, untutored mind does need intelligent leading and guiding; but not forming. The twentieth-century answer to the demand for guidance is, to open all the doors of data and of information; to present the facts, all the facts, the true, unbiased facts; and, above all, to teach the seeking mind to draw its own unprejudiced conclutions from the facts.

There is no reason whatever why the young, developing mind should not receive and exercise itself upon the facts in this full, untrammeled fashion; on the contrary, there is every reason why it should, and in every department of knowledge and practice modern education is following this very method. This is, in fact, the distinguishing mark bebetween the old education and the new. Tell the young man and woman everything; keep nothing back. Youth is the very period of trial and error; and the wider and larger and more fearless the range of its exercise of this trial-and-error process, the truer and sounder the judgments it will form.

Applying this truth to medical education, there is no reason why the medical student should be wrapped in intellectual cotton-batting and carefully shielded from contact with everything that happens to be new and unconventional and thought-provoking in his craft. Again this subtle distinction between the art of medicine and its science—one might almost say between therapeutics and every other branch of medicine.

In its scientific phases, and even in surgery, no such paternalism is practiced. No one regards it as out of the way for a surgical instrument house to call the student's attention to a line of surgical instruments, whether they happen to be in agreement with the teaching of the professor of surgery or not. If the instruments are of any value, the student has ample means of finding it out; and, if not, he has ample means of finding that out, too. That is what he is in school for. But, if a pharmaceutical firm submits to him its products, and undertakes to tell him someth'ng about them, then, unless they be "written in the words of this book," the student is being "debauched" and "polluted."

However, we do not believe that the modern medical student, unless we have greatly mistaken his temper, will permit himself to be thus swaddled and swathed—with a few timid, servile exceptions. As a friend of ours recently remarked, a medical college is not a convent. On the contrary, it is a place where young men and women, of presumably capable minds, are being trained for a definite, practical work—and not an exclusive, safe-conducted work either, but a man's part of the world's work, where competition is stronger and fiercer than even in the commercial sphere; not the competition of profits and losses, but the higher competition of results in life and health.

Under these circumstances, it is not alone the medical student's right, but it is his positive duty to open his eyes and ears and mind to everything that holds the promise of help, and to bring to the question of therapeutic agents precisely the same exercise of his faculties that he brings to matters of scientific research.

PROFESSIONAL LETHARGY: ANOTHER PREACHMENT

In our June number we published an editorial entitled "Our Lethargic Profession: How Can We Wake It Up?" This editorial has created a good deal of comment. In the Miscellaneous Department of this issue we are printing some of the many letters upon this important topic that have been received. These comments show a surprising diversity of opinion regarding the causes of our various economic troubles. Plans for the future are few and chaotic. Apparently at sea most of us are, though we generally are agreed that we ought to do something before "the deluge" of economic stress is fully upon us.

Nearly every doctor whom you interrogate will agree with us that, from a business point of view, the medical profession is sick and that some kind of remedy is needed; but, there are few who have any definite remedy to offer. All of which proves that what is needed more than anything else is an intelli-

gent study of the situation, through interchange of opinion.

Among the comments upon our editorials, we were particularly interested in one which appeared in *The Medical Economist*, of New York. *The Economist* thinks that CLINICAL MEDICINE is "just a bit unfair for not having a word to say about the work being done by *The Medical Economist*." It reminds us of the time when we were poor and fighting against odds and when we were calling upon every physician to help us secure fair play; and it assures us that it—*The Economist*—did help us at that time. It, further, declares that "CLINICAL MEDICINE is getting fat, and forgets; that it now attempts to steal the winds from our [its] sails."

Now! Now! We certainly are not trying to rob *The Medical Economist* of any of the credit due it for its strong fight in behalf of the medical profession. We have watched with interest the efforts which the earnest editorial corps of our contemporary has made to arouse the medical profession to a realization of the problems now confronting it. In this fight we are doubly—trebly—glad to wish it godspeed; because, forsooth, we but too well know what this fight means, having been "in the thick of it" years before *The Economist* was born! If we can help *The Economist*, we are with it, and glad to feel that it is with us.

Right here and now we urge every reader of CLINICAL MEDICINE to subscribe for *The Medical Economist*—at least to send for a sample copy. This monthly is published at 302 Broadway, New York, and the subscription price is $1.00 a year.

In one respect, our work differs from that of *The Economist:* the special fight of our contemporary is against dispensary and charity abuses; our fight, we feel, is broader far than that.

Thus, on our part, we are interested in the city physician, but so are we in the country physician, and the country physician has problems to solve that are not less important than those confronting the city practitioner. Among these problems, for instance, is the maintenance of his legal right to dispense his own remedies if he so desires; this, to him, is one of the problems of greatest importance. On the other hand, it is a problem that interests the city doctor only a little, and, if we can judge by the pages of *The Economist*, some of our New York city brethren show a disposition to surrender without battle the rights of their country brethren, in order to secure the support of the druggist in their own peculiar fight against the dispensary evil.

We believe the medical profession should be a unit in matters economic as well as in professional matters. This movement of ours will not succeed unless we take into consideration all the problems which concern the medical man, be he in city or in country, and deal with them in a broad-minded, generous spirit of cooperation.

So, then, if we may make one suggestion to our brethren of *The Medical Economist*, it is that it reach out for the support and the interest of *all* American physicians—there is a considerable stretch of country to the west of the Hudson! If our contemporary can evolve a satisfactory plan for the organization of the entire medical profession along defensive lines, it assuredly can count upon our whole-hearted and disinterested support, besides that of thousands of doctors to whom *The Economist* is only a name and "economic clubs" are an unknown and unrealized abstraction.

Meanwhile, the whole topic is still open for discussion in these pages.

One day a patient called on the late Dr. James Murphy of Sunderland, and said that he had already been to one of his rivals. Doctor Murphy replied, "I have no rivals; which of my friends was it?" The curse of medical life is the jealousy which keeps men looking on each other as rivals. Get rid of it, and you and your neighbor will be happier and not poorer men.

—Dr. R. C. Buist.

THE "AMERICAN MEDICINE" GOLD MEDAL

Every year *American Medicine* confers upon some American physician a gold medal, in recognition of conspicuous and noteworthy service in the domain of medicine and surgery during the year.

This year the trustees having in charge the assignment of this medal conferred it upon Dr. George W. Crile, of Cleveland, Ohio, whose notable work in the study of shock, and especially in the elaboration of his well-known theory of anociassociation has been one of the most brilliant contributions to surgical knowledge which has appeared for a number of years.

We extend our congratulations to Doctor Crile, as well as to the journal which has done him this signal honor. Of not the least significance to us is the fact that one of the essential factors in the technic of anociassociation is the use of scopolamine-morphine.

Leading Artieles

Feeding and Housing the Veterans

Another Story of the Gettysburg Reunion

By RICHARD SLEE, M. D., Swiftwater, Pennsylvania

First Lieutenant, Medical Reserve Corps, United States Army; Chief Sanitary Officer, Third Division Veterans' Encampment, Gettysburg, Pennsylvania

EDITORIAL NOTE.—Nearly a year ago, in our September (1913) number of "Clinical Medicine," Doctor Slee told the story of the medical side of the great veterans' encampment. This month he lets us behind the scenes again, giving special attention to the work of the Quartermaster's Department of the Army at Gettysburg, under the brilliant supervision of Major Normoyle of the United States Army.

IN THE September (1913) number of CLINICAL MEDICINE, it was my pleasure to present a brief article covering the medical aspects in connection with the great veterans' reunion on the battlefield of Gettysburg, in celebration of the fiftieth anniversary of that epoch-making event. I am reminded of the flight of time by the fact that in this month occurs the first anniversary of the fiftieth anniversary of the battle of Gettysburg.

With this fact in view, and likewise with the eyes of the entire nation centered upon our distressed and disturbed neighbor, Mexico, and with an army of our khaki-clad boys actually holding possession of the city of Vera Cruz and patroling the hundreds of weary lonesome miles along the Texas-Mexican border, I feel that it may not be out of place, and that, in fact, it may be of interest to our many readers to hear something of the other side of army work than that covered in my brief report on the work of the Medical Corps and the Medical Reserve Corps at the great Gettysburg camp.

The strength of an army depends very largely—indeed, we may say entirely—upon the condition of health in which both the officers and men are maintained. Throughout history, disease has killed and disabled infinitely more men in a campaign than all other agencies combined. The actual battles, with their slaughter and maiming, are dreadful enough to consider; but one is apt to overlook the terrific suffering and loss of fighting-strength from infectious and contagious diseases which in the past has followed all campaigns. Not only do we lose the actual fighting-value of the man who is sick, but each man sick or disabled requires attention, and this means an interminable train of nurses, orderlies, and assistants of various description, and an immense amount of tentage and other supplies. We need but refer to the Spanish-American War, with its history of over 20,000 cases of typhoid fever and its mortality of a trifle over 250 killed in action, to show what conditions were even at this comparatively recent period.

We have had encamped along the Mexican border for several years an army of men free from typhoid fever. Our army in Vera Cruz, as well as the brave bluejackets and marines on board the warships, are also protected. Therefore, in spite of the fact that nineteen of our brave boys laid down their lives in the actual fighting necessary to secure control of this seaport, the medical departments are not overwhelmed with an immense body of sick and diseased men, as they would have been by this time under former conditions.

I repeat the phrase, "War is hell." Of this there is no question, but the American army, and in this I include all branches of the service, has done more in the last decade to minimize the "hellish" side of conflict than all other nations of the world combined. There is no army composed of braver officers and men. There is no nation in which the individual soldier has more initiative, gumption, and pluck. There is no army better fed and better clothed, for its size; nor would there be any army better equipped with arms and ammunition and more thoroughly trained were it not for the fact that our representatives at Washington, for some reason hard to fathom, are unwilling to grant to our military authorities the necessary financial support to carry to conclusion the military plans that

have been carefully and painstakingly worked out by the various departments.

The Gettysburg Camp a Great Object Lesson

The great camp at Gettysburg gives us an idea of what can and will be accomplished by other departments, outside of the Medical Corps, in the event of conflict and the mobilization of a large army. My privilege of being a participant in this event is one which I will never forget. Although familiar with our larger maneuvers and campaigns of recent years and with many of the details of military life, I can never forget the impression made upon me on approaching this great camp at Gettysburg on the 28th of June, 1913. I do not think the feelings of a small boy on his first visit to the circus could in any wise approach mine on my first view of this encampment. Entering the camp, by way of Long Lane, from the town of Gettysburg, there was spread out before me an immense city of tents. The day was beautiful, few of the veterans had arrived, and this immense canvas city was somewhat quiet and free from the dust which became rather annoying later on.

The reader will probably be interested in looking over the official map which is here reproduced. This great camp was located in the heart of this battlefield, Confederate Avenue bounding it on one side and the Emmettsburg Road on the other. It was divided into four sections, as indicated on the map, and each little dot as it appears upon this reproduction represents a pyramidal tent, with accommodations for from eight to ten men. In addition to these tents for the men, there were large numbers of kitchens, latrines, various headquarter-tents, hospital tents, as well as headquarters for the many officers occupied in various capacities.

"Teamwork" Was Employed

In my previous article, I confined my remarks very largely to the results which had been obtained by the Medical Department in the handling of the various medical problems of this, the greatest, camp that has ever been assembled on the American continent. We of the Medical Department have a just right to feel a pride in the results obtained by our labors; still, one fact must not be overlooked, and that is, that the work of the Medical Department could never have been carried out to its successful issue had it not been for the splendid *teamwork* of all of the officers detailed in various capacities.

There was a time in the history of our Army, as is still the fact in many other armies, when the line-officer looked down upon the medical man and treated his suggestions with indifference or scorn.

In our country, this day happily has passed. The line-officer realizes that the fewer men he has to carry in the hospital or on "sick report," the more efficient and reliable is the fighting-machine. He has come to realize, and to appreciate in a generous spirit, that the medical officer of the United States Army is a trained sanitarian and a specialist in those matters which contribute to the maintenance of a sturdy fighting-force, and as a result a most hearty spirit of cooperation has been shown by the fighting side of our army in accepting the advice of the medical side. In fact, there is no army in the world today in which the medical department has as much authority, power, and standing as in the United States.

As showing the appreciation of this fact, I quote the following telegram sent from Vicksburg, Mississippi, April 18, 1913, to the chief of staff, in anticipation of the establishment of the Gettysburg camp:

> With the approval of the Surgeon-General, request that Major P. C. Hutton, Medical Corps, be detailed as sanitary officer for the proposed camp, Fiftieth Anniversary, Battle of Gettysburg, and that he be directed to report to me at Chief Quartermaster's Camp for instructions. Hutton is now with me at these headquarters. From present indications, he should be available for duty at Gettysburg after the first. I am in touch with Major Grove at Gettysburg.
>
> (Signed) NORMOYLE.

To show that the intentions of this line-officer, Normoyle, were true and genuine, I quote from his report as follows:

> I was very anxious that Major Hutton should be assigned to this duty, as I had fully discussed with him matters pertaining to the proposed camp. Having served with him in San Antonio, in 1911, and again on the flood work, I was well acquainted with his immense ability and capacity for hard, driving work. At Gettysburg, he not only sustained his reputation but added to it.

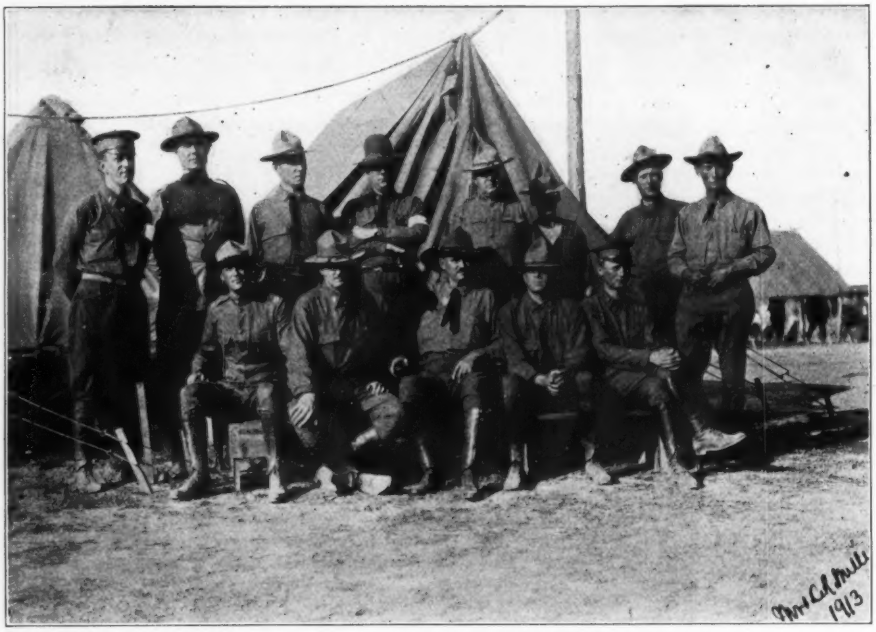
This is certainly a most generous tribute from a line-officer to one of the Medical Corps. I can confirm Normoyle's remarks as to Hutton's ability. As chief sanitary officer of the Third Division it was my very good fortune to be directly under Major Hutton's command, and I can testify—by the loss of several pounds in weight and from the further fact that we slept on an average less than four hours out of the twenty-four during the period of this camp—to his capacity for hard, driving work.

In the organization of this great camp, the War Department had detailed Major J. E.

MAJOR J E. NORMOYLE
Quartermaster's Department, U. S. Army

Normoyle, of the Quartermaster Corps, as commanding officer, under whose direction this great camp should be built. Major Normoyle was then filling a similar position in the midwest in looking out for the quartermaster stores during the period of the great flood occurring in April of 1913, and his reputation was firmly established. That the War Department made a proper selection is unquestioned, as is shown by the resolutions and the many testimonials that have poured in upon him, not only from this country, but from others. In fact, it is freely acknowledged by foreign military observers as well as our own that the planning and organization of this great camp was really one of the most efficient pieces of quartermaster-work that ever has been performed in the civilized world.

Credit for the success of this great organization must be accorded to Major Normoyle. It would not be fair to say that it was owing alone to his efforts and work, inasmuch as he had associated with him a body of efficient officers from many other departments, who one and all worked with tremendous energy and without ceasing during this period; nevertheless, in the very largest measure, the credit is due to Normoyle for his ability to



Major Normoyle and his staff at the Gettysburg Camp

secure the cooperation and the enthusiastic teamwork of his assistants, and I for one am very happy to pay this tribute, as from a medical officer to one of the line.

The bearing which this great camp at Gettysburg has upon our present relations with Mexico is, of course, as a demonstration of what our army executives can accomplish in the care and welfare of our fighting force. The camp at Gettysburg was built to accommodate 40,000 veterans, whereas in reality on some days as high as 60,000 persons were within its borders. The only means by which these men could be transported into camp was by a single-track railroad running diagonally through the camp space.

When we realize that over 25,000 aged, infirm, and in many cases prostrated veterans were brought into this camp and detrained safely, and this without a single accident, within a period of twenty-four hours, we can readily see how rapidly a mobile force of young, disciplined men could, under similar unfavorable conditions, be poured into opposing territory.

The Immense Amount of Supplies Needed in a Great Camp

It would be impossible in an article of this limited scope to cover properly the amount of tentage, stores, and the numerous other appurtenances demanded for the proper maintenance of such a host of men. For this reason, I have merely abstracted a few of the most important items from the report of Captain H. F. Dalton, who was one of Major Normoyle's assistants and property-officer of this camp.

Blankets	105,262
Cots	44,850
Tin cups	40,001
Lanterns, candle	11,350
Plates, enameled	50,000
Tents, pyramidal	6,062
Bacon, pounds	27,575
Beans, pounds	18,705
Beef, fresh, pounds	79,742
Eggs, dozen	24,930
Flour, pounds	130,048
Potatoes, pounds	186,202
Sugar, pounds	60,000
Tomatoes, fresh, pounds	13,248
Turnips, pounds	10,755
Wood for incinerator, cords	720
Coal, anthracite, pounds	18,000
Hay, pounds	247,321
Ice, pounds	12,669
Lumber, feet	216,676

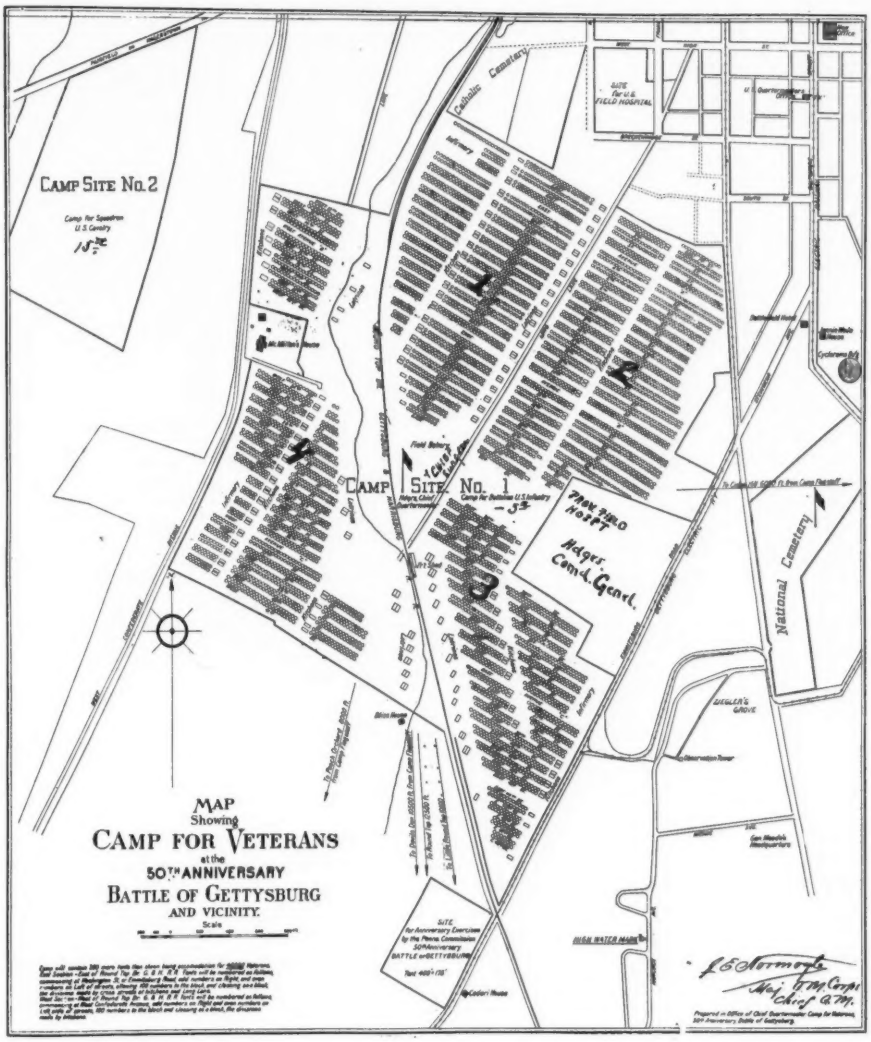
It should be remembered that these immense quantities of stores, many of them of a perishable character, were handled over this same single-track railroad, just mentioned,

without interfering with the movement of the veterans.

To appreciate the almost uncountable number and variety of details which must receive attention in handling great bodies of men, it is absolutely necessary for one to be present and observe personally such an event; while in a brief article of this character, it is impossible, of course, fully to cover the field. Even when right on the ground, one can scarcely realize the immensity of a project of this kind.

To begin, however, at Gettysburg wells had to be dug and water piped to all sections of the camp. And not only this, but sanitary fountains were introduced at frequent and convenient intervals; and even such details as the arranging of coils in pits beneath these fountains wherein ice could be stored, in order to cool the water for these veterans, were thought of. Postoffices, telegraph stations, and telephones all over the camp, electric lights, in fact, a thousand and one details that would go to make up a city many years growing were in evidence.

How many of the readers of CLINICAL MEDICINE appreciate the difficulties involved in feeding a great city-full of aged men, all



assembled virtually in two days and within a week to be returned to their respective homes near and far. Remember that not only the food, but the tables, cutlery, cooking utensils and stoves had to be ready and in place, and the cooks and their helpers assembled and prepared to do their work smoothly, and that anything overlooked in these arrangements was certain to bring on criticism. To me, familiar as I am with reasonably large undertakings of this kind, it was almost overwhelmin to gsee and appreciate what can be accomplished in an emergency.

That the difficulties were fully appreciated and every provision made in advance for prompt and efficient service, is shown by the following official orders issued by Major Normoyle:

OFFICE OF THE CHIEF QUARTERMASTER
FIFTIETH ANNIVERSARY, BATTLE OF GETTYSBURG,
GETTYSBURG, PENNSYLVANIA

Memoranda and instructions for the guidance of chief cooks and their assistants, June 28 to July 5, 1913.

1. The object of your employment in this camp is, to assist in the care of all the veterans of the Civil War who may come to this reunion.
2. These distinguished veterans average seventy years of age, and every courtesy, consideration, and attention possible should be shown them.
3. The camp is divided into four sections for purposes of administration. A quartermaster sergeant and three noncommissioned officers and such assistants as may be necessary being assigned to each section.
4. There will be several camp telephones in each section and a noncommissioned officer on duty in each.
5. The chief cook will be held responsible for everything pertaining to his kitchen, the care and proper handling of rations and protection of all supplies and the economical use of fuel.
6. Kitchens will not open for cooking purposes until ordered. Instructions will then be issued governing the approximate number of veterans to be taken care of.
7. Plates, cups, knives, forks, and spoons will be collected by kitchen-men promptly; washed and dried and assembled in the kitchen after each meal.
8. Tables must be kept immaculately clean. Quiet and orderly conduct must prevail at all times in kitchens. Any disturbance or annoyance should be reported to the noncommissioned officer in charge of section, without delay.
9. Any discrepancy or shortage in rations or other irregularity of like nature should also be reported immediately. Any pilfering of kitchen supplies of any character will be immediately reported and the offender will be summarily prosecuted.
10. The pyramidal tent nearest each kitchen is assigned for use of cooks and help.
11. All refuse from kitchens and dining-tables and all other waste material will be burned in the kitchen-incinerators.
12. All dishwater will be evaporated by pouring it into the shallow end of the kitchen-incinerators Cesspools by kitchens will not be used, except by special order of the sanitary officer.
13. Use water very sparingly, remembering that it all has to be evaporated. Pour no water containing grease upon the ground.
14. All cooks and cook's assistants will be required to keep themselves neat and clean.
15. The use of profane and vulgar language about the kitchen will not be tolerated.
16. Ground about kitchen must be kept clean and free from all particles of food, trash, and rubbish.
17. Any orders or instructions from noncommissioned officers must be obeyed without question, and immediately.

J. E. NORMOYLE,
Major, Q. M. Corps, U. S. Army,
Chief Quartermaster.

Just to show you that the veterans were well fed I may be permitted to give you the menus of the meals for one day. These illustrate the care taken by our Army men to assure the welfare and comfort of these old soldiers of the Civil War. How many of these men, do you suppose, are better fed at home?

DINNER, JULY 3, 1913, 12:00 TO 1:30 P. M.
Estimated number of guests, 40,000

Beef steak
Boiled onions
Baked sweet potatoes
Apple pudding
Fresh bread, hard bread, butter, coffee, iced tea, sugar, salt, pepper, vinegar

SUPPER, JULY 3, 1913, 5:30 TO 7:00 P. M.
Estimated number of guests, 40,000

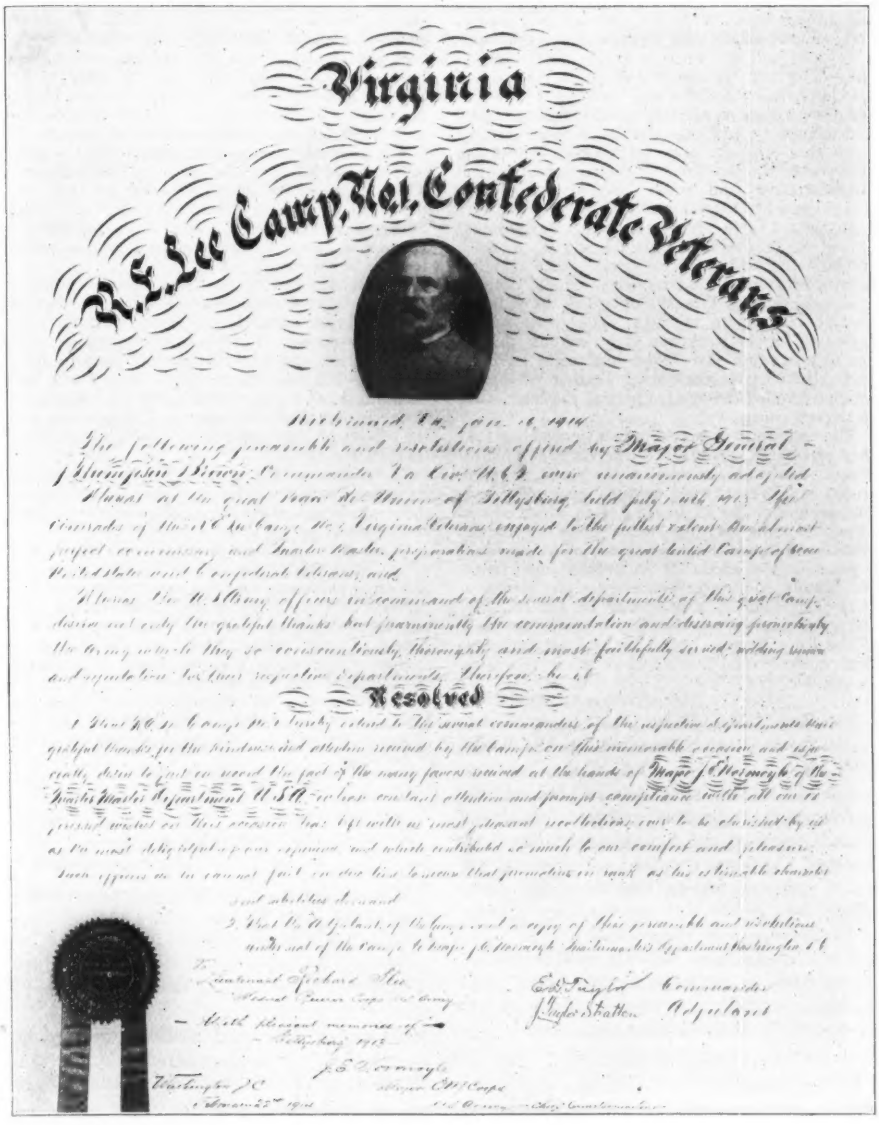
Baked pork and beans
Pickles, cucumber
Rice fritters
Fresh bread, hard bread, butter, coffee, sugar, salt, pepper, vinegar

NOTE: Pork and beans will be served three times, but the first time will be at supper June 30th, when but a portion of the veterans will be present here, and the third time will be for dinner July 5th, when a majority will have departed. This is the only meal at which pork and beans are served when all the veterans will be present.

BREAKFAST, JULY 4, 1913, 6:30 TO 8:00 A. M.
Estimated number of guests, 40,000

Puffed rice
Fried eggs
Fried bacon
Creamed potatoes
Fresh bread, hard bread, butter, coffee, sugar, salt, pepper, vinegar

And here let me say, what we did for the veterans at Gettysburg, we can do for our soldiers in the field. No one deprecates warfare more than do I, and I hope and trust that many years may elapse before this country is again engaged in actual conflict; nevertheless, it is a pleasant thought to know that in the



Resolutions passed by the Confederate Veterans

event of such an unfortunate occurrence our men will be properly provided for and will be spared many of the sufferings and hardships that heretofore have followed active military operations.

The Testimony of a Foreign Observer

As an illustration of the interest with which the assembling of the veterans was followed by those understanding the significance and importance of a great "experiment" like the establishment of the great Gettysburg camp, I quote herewith from a letter contributed to *The New York Times:*

To the Editor of *The New York Times:* Will you permit me, as an impartial English visitor to the recent camp at Gettysburg, to express the opinion that the editorial in *The New York Times* of today's date, paying well-deserved tribute to

the arrangements made for the comfort, health, and convenience of the veterans, was extremely well-timed and the words of praise most emphatically deserved? In Egypt and South Africa, and also in Germany, France, and England, I have had some experience of military camps, both standing and temporary, and have learned to appreciate the truth that only the most satisfactory results can ensue when the sanitation of the army and general administrative staff work heartily together, as was the case at Gettysburg.

Hitherto I have held the opinion that the great annual encampment at Bisley, England, in which regulars and volunteers cooperate, had achieved highwater mark as a temporary camp; but, all things considered, I must now yield the palm to historic Gettysburg in 1913. The death-roll at the camp for the week was nine veterans, all due, not to heat, apoplexy—which one might have expected in view of the torrid weather conditions which prevailed the greater part of the week—but to natural causes.

The army surgeons told me at Gettysburg that they attributed the health of the veterans to three causes: first, to the survival of the fittest, as represented by the sturdy old warriors then under canvas; second, to the stimulating effect which ensued when the same veterans revisited the old battleground and saw once again so many old comrades—a psychological factor of undoubted importance; and, thirdly, to the excellent sanitary arrangements.

The last reason might well be placed first. Gettysburg camp was certainly a credit, not only to the army surgeon, but to the military organization of the United States, which made the camp practicable.

(Signed) PERCY S. BULLEN.

New York, July 7, 1913.

[Mr. Bullen is the correspondent of *The London Telegraph*.]

The old soldiers were loud in praise of the provisions made for their comfort. Both the Grand Army of the Republic and the Confederate Veterans passed resolutions or issued general orders thanking the army officers for the care with which their comrades at Gettysburg were looked after.

I will quote from General Orders, No. 7, Grand Army of the Republic (see below), and attach a reproduction of resolutions passed by one camp of Confederate veterans:

GENERAL ORDERS NO. 7

1. The Gettysburg celebration was held July 1 to 4, as announced, and was a grand success from every point of view. It is estimated that more than 50,000 veterans were in attendance. The United Confederate Veterans were largely represented and took an active part. Your Commander-in-Chief and Bennett H. Young, Commander-in Chief of the United Confederate Veterans, spoke from the same platform at the first meeting on the first day, July 1, 1913, and gave the keynote of welcome and patriotism which permeated the whole celebration. The utmost harmony prevailed throughout the celebration. The "Boys in Blue" and the "Boys in Gray" fraternized together as though they had never been engaged in warfare against each other, and parted the best of friends.

The declarations of attachment to the Union and the flag by the speakers and members of both organizations were universal. The walls of prejudice and enmity, if any had existed, were broken down and each army vied with the other in patriotism and friendliness. The good results of this meeting to our country at large are incalculable and will be felt more and more as time goes on.

The celebration was made possible by the magnificent liberality of the state of Pennsylvania, which appropriated about $450,000 for that purpose and to aid its veterans, while the United States Government contributed $150,000 and the services of troops in the establishment and maintenance of the camp.

The Grand Army, through its efficient committee, of which Past Commander-in-Chief Eli Torrance was chairman, aided largely in making the celebration a success. The work of preparing for such a celebration and constructing and carrying on a camp of such magnificent proportions was a herculean task, and great credit is due the commission acting in behalf of the state of Pennsylvania and the officers of the regular army having the camp in their charge.

The consensus of opinion is that the camp, in all its details, was a success and gave satisfaction to those who accepted the liberal accommodations and rations provided for them.

While distinctions are invidious, it is but justice to say that the credit for the laborious work of preparing the camp and the entertainment of the veterans is due to the energy, perseverance, and self-sacrificing efforts of Major Normoyle and Major Grove of the regular army, in the immediate charge of that work, while the work of secretary of the commission was performed by Col. Lewis E. Beitler, who won the commendation of every one for his activity, energy, and suavity in the discharge of the delicate and many times trying duties of his office.

By command of

ALFRED B. BEERS,
Commander-in-Chief.

HENRY J. SEELEY
Adjutant-General.

It would be easy to add many more resolutions of this kind, and it is really a temptation to print the letters received by Major Normoyle and his associates from the Secretary of War and from General Wood, the Chief of Staff.

Associated with and assisting Normoyle, were a corps of fine, competent officers from the various branches of the service. Each and all helped to contribute to the successful carrying on of this great undertaking. I cannot do more than mention some of their names, as follows: Grove (Normoyle's right hand man), McCaskey, Stewart, Taylor, Bagby, Dalton, Hutton (the chief sanitary officer), Bradley (our chief surgeon), and Patterson, the latter detailed in charge of the Red Cross. There were others, and their names should be mentioned here did space permit.

The American nation may have no anxiety as to the report which our fighting establish-

ment will give in the event of conflict. There remains but one weak link in the chain to make us, not, indeed, an aggressive nation, but a nation whose objects are peace, prosperity, and good-will to all men. However, in order to secure and hold this position among the nations of the world, it is absolutely necessary that we should be well trained, well armed and provided for any emergency that may arise. Unfortunately, this preparation depends upon the support of our representatives at Washington, and without proper funds for the carrying out of these very desirable ends it is impossible to achieve this standing, no matter how well-intentioned and capable our officers and men may be.

I sincerely trust that the thousands of readers of CLINICAL MEDICINE will use every proper influence with their various representatives to secure for our defensive forces this very necessary support. It is recognized that in order to protect the weak and needy, one must be strong and well equipped. Being prepared in military matters does not necessarily mean conflict, but, rather, the opposite. A strong, well-prepared, and thoroughly equipped nation is in a position to demand and insist upon the proper treatment and recognition of the weak and helpless; and only by being so prepared can we maintain the position which we have come to fill in the front ranks of the nations of the world.

The Treatment of Sexual Impotence in the Male

Especially from the Surgical Point of View

By G. FRANK LYDSTON, M. D., Chicago, Illinois
Author of the "Diseases of Society," "Sex Hygiene for the Male," the "Blood of the Fathers," etc.

SEXUAL impotency in the male is one of the most important disorders with which the physician has to deal. No other ailment produces so much misery—real or imaginary. No other ailment is of greater social and individual importance. Around the integrity of the sexual function revolves the happiness and perpetuation of the human race.

Broadly speaking, impotency clinically may be divided into (1) the simple exhaustion-type, (2) the neurasthenic type, (3) the psychic type, and (4) the organic type.

The Simple Exhaustion Type

By the simple exhaustion-type, I mean those in whom, as a consequence of various general diseases of an exhausting character, sexual energy is seriously inhibited. An example of this would be impotency following fevers. In these cases, there always is danger of the intercurrence of a psychic element that will cause the impotency to persist long after the primary cause has been removed and the patient has returned to his normal state of health and vigor. In the majority of instances of the exhaustive type of impotency, a favorable issue results upon the patient's restoration to health, without further treatment.

In the neurasthenic type of impotency, various factors enter into the etiology; sexual excesses, mental worry, shock or excessive brain-work being among the principal etiological factors.

It is the author's opinion that virtually all cases of impotency in which the general health and the integrity of the testes and penis are sound, are essentially the result of a combination of imperfect circulation in the erectile tissue (consisting in a defect either in the afferent or the efferent blood supply) and nerve-reflex inhibition of erection, together with general nerve exhaustion. The two conditions, nervous and circulatory, commonly are combined; thus, the etiology of impotency largely revolves around psychic, neuro-exhaustive, and mechanical conditions.

Gonorrheal and Other Local Factors

Gonorrhea and other infections and traumatic or inflammatory insults of various kind are important factors in impotency. Even here the local condition frequently is overshadowed by the psychic.

Disease of the posterior urethra—especially inflammation or congestion of the verumontanum—often are responsible for impotency. This fact cannot be too clearly borne in mind. Many times the prostate gland, as a whole, is at fault. It should be remembered, also, that the "psychic" explanation of impotency will not satisfy anybody but the physician. The psychic argument carries little weight with the patient, who is confronted by the material fact that he cannot secure an erection. He cannot be cajoled or laughed into discrediting the evidence of his senses and of his more or less

frequent unhappy experiences in attempting coitus. The laughter and indifference of the reputable physician have made "fine picking" for the quack.

Organic Impotency Not Common

Impotency in which true organic etiologic factors are involved is relatively infrequent and in many of these cases of an organic type there are certain factors which minimize the importance of impotency; as, for example, in certain cases of hypospadias, epispadias, and so on. Even in hypospadias frequently much can be accomplished, as witness a case of the author's in which, by operation, he straightened the penis and made an entirely new urethra out of the scrotum. The success of this operation was demonstrated by perfect coitus, the contraction of gonorrhea, subsequent marriage, and the birth to him of a 10-pound boy.

The author will not here discuss sterility in the male otherwise than to state that the impotent man frequently is only relatively sterile. If such a one is possessed of normal spermatozoa and they meet with a healthy ovule in its habitat in any manner whatsoever, impregnation is likely to result. Impotency causes sterility only in so far as it interferes with the meeting of zoosperm and ovule. Obviously, in treating impotency, all the etiological factors should be taken into consideration.

One of the types of impotency (often partial only) the cause of which is distinctly mechanical in character—the condition indubitably consisting in defective circulation—is that in which the erection of the body of the penis is normal or nearly so, but the glans remains soft and flaccid.

It has been the author's experience that this fault is peculiarly amenable to surgical measures of relief, save where it is owing to cavernositis, that is, chronic inflammation of the corpora cavernosa. In this condition, plaques and nodules form which produce marked deformity during erection and not rarely make coitus a physical impossibility. Underlying the foregoing cases general arteriosclerosis is often met with. Syphilis, gout, traumatism, and gonorrhea are the other chief etiologic factors.

The Local Treatment

(1) Deformities should be corrected by surgical means. (2) Infections should be overcome. (3) Topical applications should be endoscopically made to urethral lesions. (4) The veru montanum should receive especial attention. (5) The posterior and anterior urethra, especially the former, should receive either sedative or stimulating treatment, as conditions demand. (6) Defective circulation should be remedied by mechanical means.

The cold sound, the Kollmann-Oberlaender dilator, and the psychrophore are valuable agents for the stimulation or sedation of the urethra, and especially of the pars prostatica. These agents have also a marked psychic effect.

Electricity (galvanic) may be used as a sedative. Faradism is serviceable, for its stimulative effect.

Of all local measures, the author has most faith in resection of the vena dorsalis penis.

General and Constitutional Treatment

Rest, mental and physical, and freedom from worry always are essential in the treatment of sexual impotency, for the reason that in most, if not all, cases there is present an element of neurasthenia and psychic disturbance in which the patient's lack of confidence in his virility plays a prominent role. In many instances, a complete and prolonged change of scene is essential to a cure, even after all abnormal local conditions have been corrected, surgically or otherwise. In many of these cases, prolonged rest and freedom from care are sufficient to restore the sexual power; in other words, the treatment of neurasthenia in general constitutes the prime indication in a considerable proportion of cases.

The physician can not lay too much stress upon the importance of the nervous element in impotency. Local sexual derangements always produce more or less neurasthenia; first, by their psychic effects; second, by reflex derangement of the various organic functions through the sympathetic nervous system, which so richly supplies the sexual organs both in male and female.

No study of any given case of impotency is complete without investigation of the conjugal or extra-conjugal relations in which the impotency—real or alleged—manifests itself. With sensitive persons, mismating is a serious matter. The more refined and decent the men, the more powerful will be this influence.

The conditions under which coitus is attempted should carefully be inquired into; mental perturbation and perfect sexual power are incompatible. This, for obvious reasons, bears most pertinently upon the male.

Drugs as a remedy for impotency are a delusion and a snare. Most drugs have no special effect whatever on the sexual power. Those which have exert but a temporary influence, and in large doses are dangerous. Drug specifics for impotency are frauds. Giving drugs to the impotent may, in general be said to be like the application of the whip to a sick and weary horse drawing an overloaded wagon.

For all that, drugs have a place in the treatment of impotency. Sedatives, such as the bromides and opium, to allay irritability of the nervous system and emotional excitement, often are of value. Remedies that will allay local irritation in many instances are of distinct service. Thus, urotropin, the balsams, sodium benzoate, potassium acetate or citrate—in brief, any drug which soothes the inflamed urinary mucosa by modifying the irritating properties of the urine—is useful under appropriate circumstances.

Tonics, including strychnine, quinine, iron, and arsenic, many times are of great service as adjuvant treatment.

Hydrotherapy—in the form of hot or cold or alternately hot and cold baths, showers, and spinal affusions—is of the greatest value in the treatment of impotency. Sea bathing proves especially useful.

Physical exercise is essential, and of great assistance in treatment when combined with proper alimentation. Where nutrition is impaired as well as in obese patients, the dietary demand especial attention.

Attention to the skin, kidneys, and bowels is a *sine qua non*.

Resection of the Dorsal Vein

The author's experience in some 500 cases of resection of the vena dorsalis penis for impotency justifies, in his opinion, special consideration of this method of treatment of impotency.

Like all surgical innovations, operations on the dorsal vein of the penis for the cure of impotency, quickly after the introduction of this procedure some years ago, became a fad. The commercial surgeon hailed the new operation with delight, and even the conservative and conscientious surgeon welcomed the operation as a friend in need.

But, as usually is the case, the surgical fraternity divided into two camps—those who proclaimed the infallibility of the method and surgeons who asserted its utter worthlessness. The gap between the surgeon whose patients experienced a vigorous priapism before they left his operating-table and him who condemned the operation was so wide that an "outsider" felt constrained to believe that Mammon alone could bridge the chasm.

There was, however, something so seductive about the reports of the surgeons with the priapismal patients—and more especially in view of the fact that the procedure was so extremely simple and required only a few minutes under local anesthesia—that one was loth to give ear to adverse criticism. Then, still more entrancing was the yet more simple "improved" operation of "subcutaneous ligation of the dorsal vein."

The writer's own experience has shown, apparently, that the wide variation in results of resection of the dorsal vein of the penis obtained by different operators is largely explicable by a difference in the technic as well as in judgment in selecting the cases.

Experience has taught the writer that the operation, while not dangerous to life, is neither so simple nor so easily performed as its more sanguine adherents would have us believe. The quick operation and the subcutaneous ligation consist, in most instances, in anything but what is being claimed, namely, ligation or resection of the vena dorsalis penis.

The dorsal vein proper lies beneath the fascia propria and can not be ligated or resected safely without very careful and painstaking dissection. Subcutaneous ligation of the vein is a conception of anatomic ignorance. The ligation of the superficial penile veins is not ligation of the vena dorsalis penis. This could be accomplished without incision only at the expense of important vascular and nerve structures.

Is the Effect of the Operation Psychic?

It has been said in certain quarters that the benefit of the operation is imaginary, the impotency being psychic and the effect of the operation purely so. To this one may reply that inability to secure erection is regarded by the victim as a condition, not a theory.

The writer freely admits the psychic element, not only in impotency, but in the effect of resection of the vena dorsalis penis for its cure; still, he is of opinion that the only way to effect a cure even in the purely psychic cases of impotentia coeundi is, to introduce the material factor of an actual erection. Like the man from Missouri, the psychic impotent must be "shown" before he believes; and he must "believe" before he is capable of exercising his procreative function. No amount of argument as to po-

tential power is in most cases sufficient to offset the demoralizing effect of dynamic incapacity.

The relatively prompt effect of properly performed resection of the vena dorsalis penis in demonstrating dynamic capacity, through purely mechanical circulatory agencies, must necessarily be a powerful factor in the cure. Add to this the fact that the mechanical conditions secured by the operation are practically permanent in a considerable proportion of subjects, and we have excellent reasons for faith in the efficacy of the operation.

Admitting, for the sake of argument, that the effect of the operation upon the circulation of the penis is merely transitory, this would not count against the operation in purely psychic cases; still less in those with a certain degree of psychic aberration. The suggestion of dynamic capacity has done its work long before the effect of the operation could pass away completely. If the argument that the effect of the operation is purely psychic is permitted to have much weight, the majority of patients would be discriminated against.

The Selection of Cases

The results of the usual treatment in sexual neurasthenics are not likely to be so brilliant as in many cases of neurasthenia in which there are no sexual factors for consideration. The autosuggestion of impotency may remain operative after the patient has attained a fair degree of improvement in his general health. It must be confessed also that a patient whose mind is overshadowed by the idea that he is impotent is not likely to be as readily relieved of his neurasthenic symptoms as are individuals in whom the element of worry about the sexual function does not exist.

In sexual neurasthenics, therefore, the operation under consideration has a considerable range of application. Especial care is necessary in discriminating between the cases of sexual neurasthenia with associated impotency.

In general, two types will be met with, one in which the impotency is consequent primarily upon general neurasthenia, and the other in which both the impotency and general neurasthenia are primarily the result of some local condition of the generative tract or its adnexa.

It follows that in the treatment of sexual neurasthenics certain organic elements often must be seriously considered. For example, in many cases of neurasthenia the coincidental impotency depends primarily upon irritative or inflammatory conditions of the testes, of the prostatic urethra, the seminal vesicles or even of the anterior urethra. Obviously, resection of the vena dorsalis penis is not to be considered under such circumstances until the conditions enumerated have been, so far as may be, removed.

Psychic Versus Organic Types

It is very difficult in many instances to dissociate the psychic and neurasthenic types and that variety of impotency in which actual organic disease exists in some portion of the genitourinary tract, this organic disease acting directly or reflexly in the production of impotency.

With the consciousness that something is wrong with the sexual organs many times there is associated the fear that impotency will result. When doubt as to his virility enters the patient's mind, his virility always is impaired to a greater or less extent.

It follows, therefore, that in many cases in which organic conditions can be found that afford a rational explanation for impotency the operation of resection of the vena dorsalis penis is worthy of consideration, as promising relief that cannot be afforded in any other way.

The gonorrheic having a deep-seated infection is very likely to become impotent. How much of this impotency is owing to the irritation of the deep infection and resulting inflammation *per se*, and how much to the effect upon the patient's mind of the knowledge of the existence of the deep-seated inflammation, it would be very difficult to say. After the organic conditions have been corrected in gonorrheics, it may be necessary to undertake more radical means for the relief of the impotency. In the psychic, neurasthenic, and exhaustive types, are embraced by far the larger number of cases of socalled partial impotency in which erections are feeble or transitory.

While an organic element exists in many instances in which impotency is associated with disease of the sexual organs, the organic type legitimately includes only such cases as those in which erection is impossible because of maldevelopment, underdevelopment or deformity of the sexual organs; besides injuries, surgical or otherwise, which interfere with the free circulation of the blood in the penis or destroy wholly or in part its innervation.

Cases of impotency following prostatec tomy, castration or serious disease of the

testicles naturally fall into the category of organic impotency. In passing, I desire to say a word regarding impotency following prostatectomy. While admitting that this condition is not unusual, I believe, from my own operative experience, that its frequency is greatly overrated.

Primary sexual enfeeblement, as a consequence of protracted suffering and infection or depending upon the advanced age of the patient, explains a certain number of cases. The enforced rest after operation sometimes results in the loss of such little virility as the patient still possesses, as a consequence of interruption in the normal exercise of the sexual function.

All along the line of cases of impotency following prostatectomy, however, we are faced by the strong element of psychic suggestion contained in the general impression on the part of the laity and, I regret to say, on the part of the profession as well, that this operation is, necessarily, followed by loss of sexual power. The conscientious surgeon is, unfortunately, compelled in all instances in which he performs prostatectomy (because of a certain element of psychic suggestion which may result badly) to lay impotency before the patient as one of the possible results of the operation. The surgeon, therefore, may himself be responsible (though innocently) for psychic impotency following prostatectomy.

Disturbed Innervation and Impotency

Impotency due to disturbed innervation from cerebrospinal disease of various kinds must of necessity be classed with the organic type, although in such cases the condition is not an entity, but is merely symptomatic of certain serious nervous disturbances. Under these circumstances, the degree to which virility is impaired obviously depends upon the extent to which the primary disease has progressed. Cases in this category are very rarely a legitimate field for the treatment of impotency *per se*. Such patients as a rule require absolute rest for the nervous system—rest with which sexual indulgence is incompatible in their subsequent life.

However, cases arise in which the pathologic condition of the central nervous system is not progressive and has not advanced to a degree that would make the operation of resection of the vena dorsalis penis either hopeless or unwarrantable. It must be remembered that it is in this class that the surgeon should be most apprehensive of failure.

I recall an instance in which a man afflicted with an apparently nonprogressive locomotor ataxia was so disturbed in mind because of his impotency and so insistent that he be cured of it that I suggested (and was granted) a trial of the operation under consideration. There was a marked increase in the size of the penis after recovery from the operation, and during a number of months thereafter—until the patient died suddenly from cardiac disease—there was a partial restoration of the power of erection. Innervation was so imperfect that the most that could be secured by the operation was the hopeful attitude of the patient's mind regarding the possibility of complete recovery by and by.

While in most instances in which complete or partial success is attained by the operation the benefits are appreciable in greater or less degree almost immediately, there are cases in which success is not to be expected for some months. One of my patients, a prominent medical man, wrote me that it was not until some eight or ten months after the operation that he became assured of its complete success. This gentleman since then has married happily.

From my own experience, I have concluded that the operation is a success in the majority of cases of purely psychic impotency, and in practically all those of partial impotency in which there is no organic condition of the nervous system that seriously impairs innervation. As might be expected, the operation is a failure in the greater proportion of the latter kind. In those patients in whom erection, while primarily vigorous, suddenly fails during the performance of the sexual act, the operation is successful in by far the larger number of instances. In cases of complete impotency in which there are no irremediable local causes of functional disturbance of innervation of the sexual organs, the operation appears to be successful in fully fifty percent and beneficial in probably one-half of the remainder.

In presenting to patients the claims of the operation, a full and frank statement of possibilities and probabilities of a successful result should be made, with due and thorough consideration of the individual merits of the given case. A careful and exhaustive inquiry should always be made into the circumstances under which the erectile power is wanting, with especial reference to the psychic influences dominating at the time of failure.

As to whether the results of the operation substantiate the claim that defective erection is owing in a large proportion of instances to

the too rapid emptying of the blood from the dorsal vein of the penis, I am unable to say. It seems to me, however, that this by no means is an inconsiderable factor in the etiology of impotency, and, consequently, in the results obtained by resection of the vena dorsalis penis. Nevertheless, it must be remembered that a sluggishness of arterial supply would, in effect, be precisely the same as a too rapid return of the venous blood from the part, and this probably is a logical explanation of a considerable proportion of cases of impotency, and consequently of the benefits derived from operation.

The Technic of the Operation

The operation of resection of the vena dorsalis penis can readily be performed under local anesthesia.

After the shaving of the penis and pubes (the latter procedure not being always essential), a strip of gauze is tied moderately tight around the root of the penis; this being for the purpose of localizing the effect of the anesthetic and prolonging its action. With the ordinary hypodermic syringe, the anesthetic solution is injected ring-wise about the organ, girdling it in front of the constricting gauze. It usually requires about 40 minims for this purpose. The injection is now made in a line parallel with the mid-dorsal line of the penis upon either side and about one-half inch distant from it. The solution is injected drop by drop, as the syringe is withdrawn, for a distance of about one and a half to two inches. The syringe is again introduced in a line connecting the anterior extremities of the previous lines of injection, and again withdrawn, the solution being injected drop by drop. Within five minutes the operation may be proceeded with.

The first incision should involve the skin only, the next the fascia, which is caught upon either side with a snap-forceps and thus held apart. The deep layer of the superficial fascia is now incized, and just beneath it in the middle line will be found the dorsal vein. The latter now is dissected free very carefully. If any small venous branches of the dorsal vein chance to be divided, there will be considerable hemorrhage; which naturally makes the operation much more difficult. The vein having been freed and lifted from its bed, it is dissected well down into the anterior and posterior angles of the wound, and a ligature of very fine catgut is applied anteriorly. This is cut short, and a similar ligature is applied at the upper angle of the wound. This is in turn cut short and the intervening portion of the vein is excized.

The constricting gauze about the root of the penis is now removed and all hemorrhage checked. Care must be taken not to permit any oozing points to remain, as a hematoma is formed very readily. The deep layer of the superficial fascia is first sutured over the bed, from which the vein has been removed, with very fine catgut; this is followed by suturing of the superficial fascia, thus forming two layers. If there is any difficulty in outlining the separate layers of the fascia, there is no objection to uniting all of the fascial envelopes in one layer.

This suturing of the fascia in separate layer or layers is an admirable safeguard against deep infection, which otherwise might prove serious if there should be any suppuration involving the body of the penis. The fascia having been sutured, the skin is stitched with (preferably) horsehair, although fine catgut is admissible. The wound is now dressed with iodoform gauze and collodion or celluloid cream.

The skin wound usually heals by first intention. Sometimes, however, it does not do so, because of vigorous erections, which, in favorable cases, the patient is likely to have regularly at night following the operation. The mechanical disturbance, in the absence of any source of infection, is responsible for this failure of primary union.

The patient, as a rule, need not be confined to his bed longer than four or five days, although a week sometimes is necessary. I presume that it would be fairly safe for the majority of patients to go about after the operation, but on general principles it seems better for them to be kept quiet. If erections are very vigorous and somewhat painful, it may be necessary to apply cold.

Where the superficial veins of the penis are large and tortuous, it is wise to excise, through the same incision, an inch or more of one or two of the principal vessels. This can readily be done by stretching the elastic skin downward upon either side by traction upon the edge of the incision until the superficial veins are reached.

I cannot leave the subject of the treatment of impotency without allusion to my recent experimental work in sex-gland implantation. From my experience thus far, I am convinced that testicle implantation from either the living or the dead body is the indication *par excellence* in obstinate cases of impotency not the result of sex-local or cerebrospinal organic disease. The method also has re-

constructive effects of a general character, dependent upon the action of the sex-gland hormone. Unfortunately the cost of the procedure necessarily limits its field of application.

Conclusions

1. The resection of the vena dorsalis penis in the treatment of impotency is an operation requiring accurate anatomic knowledge and can not be done subcutaneously without serious danger of injury to important parts or of total failure of the operation, even granting that it is practicable—which I do not believe it to be.

2. The operation, while not essentially dangerous, is neither so simple nor so easily performed as has been claimed for it.

3. The location of the dorsal vein is such that careful and painstaking dissection is necessary for its proper ligation or resec tion.

4. The ligation of the superficial penile veins has been performed in many instances when the operators claimed that they had ligated the dorsal vein proper. This operation upon the superficial veins frequently is essential to a complete operation; when performed alone, however, it is futile.

5. The operation is beneficial in very many cases on strictly psychic grounds, but this does not militate against the advisability of performing it. The important thing for the patient is, to have function restored.

6. In some cases of impotency of organic origin, the operation is not to be thought of; but, in quite a wide range of cases of the kind the operation is successful, firstly, because of its mechanical effect; secondly, because of its psychic effect.

7. One of the most important elements in the cure of impotency by a properly performed resection of the vena dorsalis penis is, the demonstration of the dynamic penile capacity through purely mechanical circulatory agencies.

8. The mechanical conditions thus secured are permanent in quite a large proportion of cases.

9. In cases of complete impotency not dependent upon irremediable local causes of functional disturbance of innervation, the operation apparently is successful in fully fifty percent, and beneficial in probably one-half of the remainder.

10. In by far the majority of cases of impotency that come under the observation of the surgeon, a trial of this operation is justifiable.

11. Sex-gland implantation apparently is the most promising remedy in certain cases of impotency, but its range of application is limited and the operation necessarily expensive.

Concentration

By Strickland W. Gillilan.

This thing I do was never done before.
  There is no other place in all the earth.
There is, besides myself, no human more
  That ever thanked his Maker for his birth.
I and the thing I do are everything
  That is or was or will be 'neath the sun—
There is no sun across the sky a-swing,
  Nor will be till this task in hand is done.

Thus, shut out from the universe, you see
  The stint, clear-eyed, unhampered by tradition;
See things as God intended them to be,
  No other mind dictating your position.
Through just such means as this comes all the help
  The world receives to lift it from a rut;
The State Ship's keel is cleaned of clustered kelp
  And doors are oped that custom had marked "Shut."

Bacterin Therapy in Every-Day Practice*

III. Vaccine Treatment of Whooping Cough

By W. C. WOLVERTON, M. D., Linton, North Dakota

EDITORIAL NOTE.—If you want to understand the new therapeutic world of biologic medication you should read the fine papers Doctor Wolverton is contributing to "Clinical Medicine." The series began in our May number and was continued in June. The accompanying is number three. Others will follow. Don't miss a single one.

FROM time immemorial, the medical profession virtually has been helpless in the treatment of pertussis. Antipyrin, belladonna, bromides, bromoform, chloral, chloroform anesthesia, gelsemium, hyoscyamus, iodine, monobromated camphor, quinine, resorcin spray, silver-nitrate spray, besides a long list of other remedial agents have been tried, and generally found wanting. Recently there have appeared several "ethical proprietaries" having thyme as their base; and these have proven about as disappointing as their predecessors. It is a common occurrence to hear some of the laity remark that "it is no use going to a doctor to get medicine for whooping-cough;" and, considering our lack of success, we hardly can blame people for their lack of confidence in our ability to cope with this *bête noir* of childhood.

But now it would appear that the old order is changed and that we shall have to educate the laity to the fact that we at last have a *specific* remedy for whooping-cough, thanks to the investigations of Bordet and Gengou, who, in 1906, isolated the specific bacillus of pertussis. Once the causative agent was known, it was a comparatively simple matter to develop a bacterial vaccine from it, after the method of Sir Almroth Wright.

Reports of Experience

Recently several medical writers have reported series of cases of pertussis in which the victims were treated with the Bordet bacillus vaccine. E. E. Graham (*Amer. Jour. Dis. Childern*, Jan. 3, 1912) reports 24 such cases in which a vaccine prepared from the specific bacillus was employed. In 71 per cent of the cases, the results were beneficial and, in his opinion, warrant a more extensive trial of the vaccine.

M. Ladd (*Arch. of Pedi.*, Aug., 1912) cites 9 cases of typical whooping-cough in infants and young children treated with vaccines at intervals varying from five days to two weeks, and in which no harmful symptoms, local reactions or bad effects, were seen. The doses were from 3 million to 40 million killed bacilli. One child to whom the vaccine was administered was but seven weeks of age. Ladd remarks that in another series of cases he would use much larger doses, at 5-day intervals or oftener. No other treatment was given, and usually after three injections there was a decrease in the number and severity of the paroxysms. All of the sufferers recovered without experiencing any complications, on an average in five weeks after the institution of the specific treatment.

J. Zahorsky, of St. Louis, considers vaccines, in doses of 30 million to 50 million, to be a very helpful therapeutic measure in pertussis.

G. Morton Illman, of Philadelphia (*Intern. Clin.*, Vol. 2, Ser. 23), says he believes that larger doses, regularly given at 3- to 5-day intervals, will, in the future, give us better results; providing, of course, that we keep in mind the possibility of the secondary and complicating presence of other actively pathogenic microorganisms abounding in the respiratory tract.

A number of other articles have appeared in the literature during the past year, and several of them have been abstracted in *The Journal of the American Medical Association.*

I have carefully perused the literature pertaining to the vaccine treatment of pertussis, and have encountered but few reports of failure from the treatment, and none whatever of any untoward effects. Furthermore, it is a notable fact that the best results have been obtained where comparatively large doses of the vaccine have been employed, failures, apparently, being traceable to too small dosage.

My Experience in an Epidemic

Lately there has occurred an epidemic of whooping-cough in the neighborhood in which I am practicing, and I happened to be the only physician in this locality to employ the pertussis-vaccine. Among the children treated by time-honored methods, and in which cases *no vaccine* was given, some 9 or

*Read before the Sixth District Medical Society, Bismark, North Dakota, June 16, 1914.

10 deaths have occurred. Of the 36 patients whom I have treated, and to all of whom the Bordet vaccine was exhibited, *every one recovered*. The only other remedy employed in my cases was iodized calcium; and in a few cases in which this latter chemical was given without the simultaneous use of the vaccine, results were notably less satisfactory.

Of the above-mentioned 36 patients treated with vaccine, 15 were infants a year or less of age; 13 others ranged from one to four years of age; while the 8 remaining patients were considerably older.

My first patient was a girl of three years who already had been confined to bed for nearly three weeks. Her infant brother had died of bronchopneumonia, complicating whooping-cough, two days before I was called to attend the little girl. A dose of vaccine containing 100 million killed Bordet bacilli was administered, and within about four days the little one was able to be up and about the house. A week later a second dose of 200 million was injected. The child speedily recovered without any further inoculations.

In another family, an infant and a boy of two years had well-developed attacks of pertussis. The boy had become drowsy and very feverish, and the parents feared the onset of a complicating bronchopneumonia. In these two children, a mixed vaccine containing in each dose 100 million Bordet bacilli, together with pneumococci, streptococci, and catarrhal micrococci, was employed. The parents reported a noticeable improvement in the condition of both children *in about twenty-four hours*. No second dose was given, and both children made a quick recovery.

Out on a ranch some fifteen miles from Linton, an infant had been ill for several weeks and exhibited the characteristic "whoop." About two months ago, the paroxysms became so severe and frequent that the child had several convulsions. I was called in the middle of the night; but getting lost in a "near-blizzard," I did not reach the baby until early in the morning. A dose of a mixed vaccine (identical with that used in the case just preceding) was given, and I told the parents I should return in a week to repeat the treatment. A few days later, the father of the child telephoned that it would not be necessary for me to come, as the baby was recovering rapidly.

A Summary

It would be a useless waste of time and space to give detailed reports of the rest of my cases; so, I will finish with a few conclusions drawn from my own experience with the vaccine treatment of pertussis, as well as from the reports of other observers.

1. In my own personal experience, in a limited number of cases (36), the results of vaccine therapy of whooping-cough have been very satisfactory, indeed.

2. In no case occurring in my own practice has there been any unpleasant symptom resulting from the vaccine treatment; nor can I learn of any such from a perusal of the literature.

3. Experience seems to prove that the best results are attained where large doses (50 million to 200 million killed bacilli) of the vaccine are employed. The fear of a harmful negative phase, here as elsewhere in the field of bacterial therapy, apparently has been greatly overdrawn. I have used only large doses, and have never seen any harmful effect whatever. Where failures have been reported, invariably too small doses of the vaccine have been used.

4. As a prophylactic and in early, uncomplicated cases of pertussis, the plain Bordet bacillus vaccine suffices. But in late cases or in cases complicated with bronchopneumonia, a mixed vaccine containing the pneumococcus, streptococcus, and micrococcus catarrhalis, in addition to the Bordet bacillus, is indicated.

5. The Bordet bacillus vaccine is a dependable prophylactic, if used promptly after exposure; or before exposure when an epidemic is known to exist. My own two children, aged two and a half and seven years, respectively, have repeatedly been exposed to bad cases of whooping-cough during the past two months. After their first exposure, each was given 100 million killed bacilli; this dose was doubled a week later, and again in two weeks. Neither child has since contracted the disease.

6. I believe, from my experience, that the gluteal region is the most likely spot into which to inject this or any other kind of vaccine, in the case of children. There is here plenty of loose subcutaneous tissue into which the vaccine can easily be injected, without causing undue pain and inconvenience. A further advantage is that the child cannot see what you are about to do, when it is turned face downward across its mother's lap.

7. An honest trial will convince the most skeptical that in the vaccine therapy of whooping-cough we at least have made a wonderful advance over the old-time empirical remedies (so called).

Observations on the Effects of Bacterial Vaccines

By W. F. VON ZELINSKI, Sc. B., M. D.

First Lieutenant, Medical Reserve-Corps, U. S. Army; Demonstrator of Surgical Anatomy at Bennett Medical College

THE literature concerning immunity grows more voluminous from year to year, and the work along those lines has grown so extensive that it becomes a burden even to those who are immediately concerned with such work; and, so, too, it becomes impossible for the practitioner to gain any more than a smattering of what immunity and its allied sciences concerns itself with. To speak of searching the original work and to investigate the various theories is, of course, to speak of the improbable. Yet, in spite of the fact that the less we know of a subject the more we write (and conversely), it strikes me, as a mere observer, that nothing else has ever exercised such a general influence on the scientific practice of medicine as have the problems of immunity and serum therapy.

It must be admitted that marvelously rapid strides are being made in biological medicine. The abstract question of today has the greatest practical value tomorrow not merely from a therapeutic but from a diagnostic standpoint as well. The pathological physiology and the evolution of many diseases has been greatly illuminated ever since, we might say, the re-advent of humoral physiology.

The question of serum therapy and diagnosis being, to my mind, such an important one for the advancement of the man in general practice and the good of the community, it affords me pleasure to contribute my observations and experiences with the bacterial vaccines in the treatment of disease.

It must be understood that I am, perhaps, at the same disadvantage as are most men engaged in general work, in that the opportunity for treating any great number of certain kinds of conditions has been rather limited. However, the experiences herein recited cover a period of about five years, and I might mention here also that, having been accustomed to the use of various sera for diagnostic and therapeutic purposes ever since leaving college, an accurate comparison with the older methods of treatment can not be made.

The Use of Tuberculin

Perhaps the best known of all bacterial vaccines is tuberculin, and, although one reads every now and then of controversies as to whether the good is derived from their use or whether it is the adjunct treatment that has the most curative value, I believe enough work has been done to prove beyond a reasonable doubt that the various tuberculins are of distinct curative value. I have had but three cases which I considered suitable for the bacterial vaccine treatment, and these patients made very satisfactory recoveries.

Briefly stated, I employ the treatment under the following circumstances:

1. The patient's afternoon temperature must not go above 100° F. None or only a very few tubercle bacilli must be in the sputum.

2. I must have good control over the patient; that is, they must report to me twice weekly, with their temperature charted at 9:00 a. m., 1:00 p. m., and 5:00 p. m. They must be in a position to give up or change their occupation, and must follow out the casual orders as to diet, exercise, and general hygiene.

I use tuberculin (T R) in serial dilutions, and control my dosage by its effect on the temperature. If this should rise above the usual afternoon temperature, I do not increase the dose, and may even drop several minims until matters have again adjusted themselves.

Some patients with advanced tuberculosis who have refused sanatorium or hospital treatment I have treated with mixed-infection stock bacterins containing no tubercle bacilli, in addition to the usual measures adopted in such cases. I cannot say that there was any difference in the results.

Cases of Acne Vulgaris

Especially interesting are the cases of acne vulgaris of the face. These were classical cases. The prophylactic treatment in the way of diet and care of the gastrointestinal tract was followed out, although there was no particular indication for any special treatment in this direction.

Active treatment consisted in having the patient scrub the face at night with a preparation of green soap containing prepared chalk and sulphur in suitable proportions. Very hot water was used, this followed by rinsing with cold water. The face was then dried with a rough Turkish towel. This was followed by the application of an ointment

containing as its active constituent, in cold cream, either ammoniated mercury or resorcinol. Twice weekly the patient called at the office, at which time the more prominent pustules were opened under aseptic precautions, while the base was swabbed with 95-percent phenol, followed by alcohol.

A socalled acne stock bacterin was at first injected twice weekly, but latterly an autogenous preparation was used. Both these preparations contained the various strains of staphylococci (too well known to be detailed here). In every case of uncomplicated acne vulgaris so treated I had good results, the treatment proving gratifying both to the patient and to myself.

I consider the bacterins of distinct value in the chronic dermatitides and would give the preference to the autogenous bacterins. Six subjects were thus treated.

Bacterin Treatment of Rheumatism

One may be skeptical about the effects of any remedy in the treatment of articular rheumatism; likewise one may be pardoned for waxing enthusiastic if he attains good results in a half dozen, or so, of cases, hand-running. Such results I have often secured by the use of the various salicylates. Likewise I have failed to make any impression whatsoever in an equal number of cases, also hand-running, under the same line of treatment. Doubtless I recite a common experience when I say that I have tried anything and everything in such cases; hence, it may not seem strange that the various bacterins and sera have been resorted to. And these, with the exceptions named, have given good results up to the present time.

The earlier patients were treated with Schaefer's modified vaccines as prepared by one of the large pharmaceutical houses. However, the reaction after their administration proved so marked, and the results being negative, I abandoned their use in rheumatism as well as in other diseases.

Lately I have been administering the combined bacterins, after Van Cott's formula, and in every instance in which I have used them (8 in number), I am sure they have exercised a decided effect for the good. I should like to mention one case in particular:

Experience With Van Cott's Bacterin

A man, thirty-four years old, barkeeper, was having a third attack of polyarthritis within a period of two years. The salicylates in every form and various combinations, together with alkalis, baths, applications, had all been tried in vain.

The preparation of an autogenous bacterin being out of the question, I decided to try the Van Cott bacterin. Injections were given at intervals of four days, and these caused marked local reaction and some exacerbation of pain in the joints. However, in from twenty-four to thirty-six hours after the injection the temperature would drop to normal and remain stationary for about twelve hours, then gradually rise again to 100° or 101° F. The relief from pain experienced was very great, so that after the use of six injections the pain had left the joints; while the temperature had dropped to normal and remained so.

Twelve injections in all were given. The patient thereafter was soon able to go about, although some stiffness in the joints remained; but this gradually disappeared under iodine inunctions and potassium iodide internally.

The other cases were classical in their symptoms, and my belief in the efficiency of the bacterin treatment is derived alone from the short duration of these attacks. It was also noticed that the heart complications were less frequent and less pronounced.

In children, I have tried the treatment in four cases, and am now in a position to testify to its value, especially in treating cases of rheumatic endocarditis and chorea.

Coli Bacilluria

My experience covers 2 cases, one being that of a man who had chronic cystitis. He improved under the administration of an autogenous coli bacterin, but was not completely relieved, owing to a prostatic obstruction. However, repeated examinations of the urine showed marked diminution in the number of coli bacilli, and the patient was enabled to control the urine much better.

The second case was that of a woman who had had two miscarriages. She had bladder symptoms of three-years' duration, and absolute retention following one of her miscarriages, this necessitating the use of the catheter for nearly a week. After twelve injections of an autogenous bacterin, she was now able to pass her urine freely without distress, still, she was not enabled to hold it longer than four hours.

This last case is especially interesting, inasmuch as no other treatment was employed, and at one time, even after emptying the bladder, the catheter showed residual urine of from one to two ounces. Later I determined that this patient was also affected with pyelitis of the right kidney, the exact cause of which has not as yet been discovered.

I have never been able to convince myself that any decided effects have been obtained from the use of gonococcus bacterins, stock or autogenous, in acute or chronic gonorrhea. It is possible that I may have obtained some results in the patients with gonorrheal endocervicitis; but this, too, is doubtful, inasmuch as a change of local treatment seemed to produce very decided effects.

In my earlier cases, I applied a solution of argyrol, protargol, and iodine, in combination with the bacterins, seemingly without effect, or at least without lessening the discharge. It is a well-known fact that the gonococcus may be found in such discharges in great abundance at one time, and not at all at another, even when the patient is not under treatment.

At present I make local applications to the cervix of pure formaldehyde, and, contrary to what one might expect, it seems to cause very little or no distress, while the results have been better than with any other local application that I have ever tried.

I use the bacterins in combination with this, of course. In men, I have abandoned the use of bacterins, as I feel reasonably certain that they do very little, if any, good.

In conclusion, I would say, as I have stated before, that I have used bacterins quite extensively; and, besides the cases already mentioned, I may mention erysipelas, furunculosis, abscesses, cellulitis, and postoperative suppurating wounds; but the number of cases of each kind have been so few that I am unable to form any definite conclusions as to whether the bacterial vaccines helped or whether it was the other treatment.

Tragedies in a Sexologist's Practice

By WILLIAM J. ROBINSON, M. D., New York City
Author of "Never-Told Tales," "Sex Problems of To-day," editor of The Critic and Guide, and The American Journal of Urology

THE practice of one specializing in venereal and sexual disorders is an interesting one. One hears peculiar stories, one acquires a unique insight into human nature, into the intricacies and aberrations of that powerful mainspring of human life—the sex instinct. Unexplored and uncharted depths of human psychology are opened up to you. It is the most interesting branch of medicine, but it is also the saddest one.

At the end of a day's work my heart often is filled with sadness and pity for human ignorance, human weakness, and human suffering; and I feel amazed at the intensity of the conflict between human instinct and social-religious restrictions imposed upon the natural expression of that instinct. And, so, it is no wonder that at the end of nine or ten months of steady daily work of this nature I feel tired and weary; and I long to get away to places where nature *is* at its best and men *appear* at their best.

What a relief it is to exchange the steel sound for an alpenstock; how much more pleasant it is to look through a telescope at the snow-clad mountains than it is to peer through the endoscope at the veru montanum; and how incomparably nicer it is to fondle a rose than it is to massage a prostate gland!

But all in its time. I must not forget myself. The vacation is not yet, and I have started out to describe a day's work out of my practice. So, let us proceed. The longing for a vacation will become more understandable. For, the tragedies are too frequent.

Here are cases from a single day's practice.

Malignant Syphilis

Case 1. Young Mexican. Quiet, timid boy, aged 19. Sent to this country by his wealthy parents, to acquire an education in a private school. What he did acquire very soon was a case of *precocious malignant* syphilis. The entire body is a mass of sores and ulcers, so that the underwear sticks, and upon the attempt to remove it there is bleeding from hundreds of points. The mouth is *full* of mucous patches. A few days' treatment worked wonders in his case—how I did wish that Christian Scientists and drugless healers could have watched this case from day to day—but he wrote home, asking for money and telling just what his trouble was.

Then he received a letter from his father ordering him to come home at once, together with just enough money for a steamship-ticket to Vera Cruz. He trembled like a leaf when he referred to his father, who apparently was not any too gentle. He said he thought the best thing for him to do was to jump off the steamer. Not only a career but a young life completely ruined. One can imagine

what kind of reception he will be accorded at his father's hands, and what kind of treatment he will receive at the hands of some local doctor.

Case 2. Man, married seven years. Father of three young children and husband of a beautiful young wife. And still he considered it necessary to indulge extramaritally. There was the almost inevitable result—gonorrhea. And now he is in a great hurry to get cured; for he cannot have relations with his wife, and if she should get suspicious—why, there would be no end of trouble. She is not one of those who would stand for such a thing. And he is a fine fellow: a pillar in his church and conducts a Sunday-school class.

The tragedy in this case is not the contraction of the gonorrhea—sometimes the best thing that can happen to a man, for it keeps him straight forever after and makes him sublimate his sexual energies into higher directions. The tragedy here is that a man who has a young, healthy, and attractive wife should consider it necessary to patronize women who are greatly inferior, not alone mentally and spiritually, but even physically. Yes, this is a real tragedy, and unfortunately a very frequent one.

Case 3. Congenital homosexual. Refined fellow, feels his condition very deeply, considers it the most terrible tragedy that could ever befall any man or woman. He would love to have a home and children. His dreams, all of a homosexual character, fill him with loathing and disgust and drive him to despair. There may be homosexuals who are reconciled to or even proud of their abnormality, as some sexologists claim, but I must confess that I have not met such types. Naturally, those who are satisfied with their condition will not come to a physician to be treated for it.

Some Cases of Urethritis

Case 4. Girl of fifteen, infected with gonorrhea by her uncle. Nothing more, I think, need be said to make the tragedy stand out in greater relief. The tragedy is tragic enough in the one sentence of nine words. And, *en passant*, I wish to add that instances of seduction and infection of young nieces by uncles or near relatives are extremely common. Only physicians, and generally only specialists, learn about them. The public never or only very seldom hears of them. To bring the case to court, means a scandal and disgrace to the family and the penitentiary for a blood-relation. Consequently the tragedy is hidden and the parents do the best they can under the circumstances. Usually—except in the lowest strata of society—the uncle pays for the cost of the treatment.

Case 5. Woman about twenty-nine. Was married about a year and a half ago and was infected soon after the wedding; left her husband two months later and has been struggling very hard since then to support herself. Has taken up stenography and typewriting, and has now a position at ten dollars a week. Says she would work her finger-nails off before she would return to her husband. Some women just can't swallow certain things. Others put up with all their husband's derelictions—infidelity, abuse, venereal infection. Which is the higher type of woman?

Case 6. Young fellow with an ordinary gonorrhea. He is practically well, and he does not take his trouble seriously. And that is just what is tragic about this case.

Case 7. Man of thirty-six. Has never had sexual relations, but has masturbated in moderation since the age of fourteen. Wants to get married, but on making an attempt finds himself impotent, there being complete *impotentia erigendi* and *ejaculatio praecox*. Is extremely despondent and gets severe attacks of the blues. A man who up to the age of thirty-six has had no sexual relations is a tragedy—a victim of our stupid social restrictions and false teachings.

Case 8. A man of forty-seven, married, father of several children, a substantial and respectable business man from Columbus, Ohio, came to New York for a few days to do some buying. He went out one evening and—contracted syphilis. It is perfectly heartbreaking to watch him when the positive diagnosis is pronounced. His face is blanched, his knees tremble, and he looks a picture of the deepest despair. How will he go home, what will he say, how will he be able to take the long tedious treatment, and that whole litany. But what could I do? I could only sympathize with him, pity him, and start him on the proper treatment (for every day counts) and which will have to be continued in his home town.

Cases of Illicit Pregnancy and Abortion

Case 9. Girl of nineteen. One of our radical feminists. In spite of some of her uncompromising radicalism, she has some difficulty in telling her trouble. But it is easy to guess it. She is two months overdue, and so forth, and so on. Gently but firmly I tell her that I sympathize with her deeply, but that I cannot help her. That I am not in

that line of work. That abortion always is accompanied with some element of risk, and that my important work does not permit me to take any risks, and more like that. She goes away broken-hearted; still, she will not have great difficulty in finding an accommodating physician.

Case 10. Another young woman. She had an abortion performed on her some six weeks ago by a midwife, and since then she has been bleeding continually and lately has experienced severe pain in her left side; has lost several pounds in weight; is very anemic and suffers from insomnia. An examination shows an endometritis and salpingitis, the result, undoubtedly, of infection at the hands of the midwife. She may get well under conservative treatment; but she also may need an operation. Women who go through life chronic invalids on account of bungling abortions are met with only too frequently.

Case 11. A young physician, an exceedingly sympathetic fellow. Was to be married on a certain date. Everything was arranged. Went out with some friends, drank more than he should have, went to a notorious place, contracted gonorrhea. The condition is of the ultravirulent type. The wedding will have to be delayed indefinitely, for the doctor would not think of marrying until he is absolutely cured. And we know how long it sometimes takes to effect an absolute cure of gonorrhea.

Why will men do such things—jeopardize their own health and happiness and the health and happiness of their prospective wives on the very eve of their entering the bonds of matrimony? Is it just sheer wickedness? Or does the word "bonds" offer some explanation? Of course, it is very simple to explain things by calling them wicked, vicious or immoral, but, while some of the men do deserve some such epithet fully, it does seem so absurd to apply it to some types of men. Nobody, I am sure, who knew this physician well would call him vicious or immoral, for in all other things he is the very soul of honor. So, what *is* the explanation?

The Childless Couple

Case 12. A middle-aged couple. In poor circumstances, the husband having a small printing-shop. Married twelve years, but no children, and the wife is just "crazy" to have a child. Examination of the husband shows plainly the legacy of an antecedent double epididymitis, and an examination of the semen shows total azoospermia. Am obliged to tell them that there is virtually no hope, and they go away with a feeling of despair. For what is a poor man's life without one or two children? The only pleasure, the only *interest* they have in life.

And I cannot help smiling sadly when I think of another couple who were in the office the day before, but whose cry for help was of an entirely different character. They were married five years and had four children, and wouldn't I, for God's sake, give them something, so that they should not have any more. For the husband, who is a bank-clerk, is getting but a small salary, the wife's health has run down, and they simply can not afford to have any more children.

Why is nature so inconsiderate? People who would be quite satisfied with one or two children have half a dozen and must have recourse to contraceptives not to have any more; while other couples who are just dying to have one or two children can have none at all.

I had seen twenty-nine patients that day, but the other seventeen were ordinary cases of gonorrhea, syphilis, and impotence, and to describe them in detail would be repetitions and would render this article too long.

Of course, all disease is more or less a tragedy. But venereal or sexual disease is a double tragedy, for it generally affects another person besides the patient—and sometimes that other person, be it the husband or the wife, is a greater sufferer than the patient himself or herself. We could call venereosexual disease a triple tragedy, for, besides the husband and the wife it also affects the race; doing this by preventing children from being born or by afflicting the children that are born with disease and mental and physical inferiority.

There is still another element. A stigma of disgrace attaches to venereosexual disease which attaches to no other class of diseases. All other diseases are avowed openly and treated openly. The venereal patient alone must hide his trouble from his family, from his relatives, from his boarding-house keeper, his room-mate, from all, and this makes it so much more difficult to cure the disease properly.

Yes, venereosexual disease is a great tragedy, and we are in the midst of such tragedies every day of the year. And, while, seeing numerous cases, you necessarily grow somewhat callous, still, they do not fail to have their effect upon you. In spite of yourself you get weary, depressed, and you long to run away to pleasanter climes and to pleasanter thoughts.

Opportunity as a Therapeutic Expedient

By HENRY S. MUNRO, M. D., Omaha, Nebraska

DURING the past five years I have added more books to my library than during the previous eighteen years combined, to say nothing of the twenty or more journals that find their way to my office, weekly and monthly. In these publications are the recorded experiences of others, as gathered in hospitals and laboratories, at the clinic and by the bedside, at home and abroad—all of which information is invigorating, educational, stimulating, and wholesome. In these printed pages we find discussed serodiagnostic measures and laboratory technic galore; chemotherapeutic measures under various theories are described in such abundance and served in such attractive paraphenalia that one can but feel that we are living in the best day, the best year, the best century in the world's history. All of the achievements of ages past and gone are our heritage.

Eternity looms up before us with illimitable possibilities for growth, development, and achievement. The energy that sustains the sun and the innumerable planetary systems, the ever-changing seasons, the growing vegetation, the myriad forms of animal life, the restless tides of ocean, the grandeur of the mountains, the delicate coloring of the flowers that bedeck the hillsides, the opalescent hues that tint the horizon and the rainbow are ever present to sustain and invigorate us; and amidst these varying factors of our environment, where we see action and reaction, life and death, toil and achievement, we can but catch something of the inspiration of these omnipresent forces of nature, of which we are a part, and feel that life is well worth while.

We look upon the objective world about us, but our capacity to appreciate the beauty and grandeur of our vision must be gained by comprehending the work of our fellows and comparing it with what we see, in common with other forces of nature, in order that we may correctly maintain our relation to the composite universe, and thereby live in harmony with other forms of life.

Fallacy of the Doctrine of Congenital Criminality

One of the most inspiring books that has come to strengthen our efforts was the volume containing the symposium upon "The Physical Basis of Crime," presented at the thirty-eighth annual meeting of the American Academy of Medicine, held at Minneapolis June last, more particularly the "Study of 1000 Cases of Young Repeated Offenders," by Dr. Edith R. Spaulding, resident physician in the Reformatory for Women at South Framington, Massachusetts, and Dr. William Healy, director of the Juvenile Psychopathic Institute in Chicago, which showed conclusively that these investigators have found "no proof of the existence of hereditary criminalistic traits, as such." These authors further remark:

"Of course, we cannot absolutely deny such inheritance; but, judging by our studies, we feel that careful observations elsewhere will bring forward evidence rather against such a theory than in favor of it. On the other hand, through studies of the eugenists and advances in medical and psychological knowledge, crime will be found indirectly related to heredity in ways most important for society to recognize. *The underlying foundations of criminalism are the evils to combat.* As existing apart from definite and discoverable mental, physical or environmental causations of criminalistic behavior, we may regard the idea of bare criminalistic traits, especially in their hereditary aspects, as an unsubstantiated metaphysical hypothesis."

Another writer in this symposium, Robert H. Gault, Ph. D., associate professor of psychology in Northwestern University, and editor of *The Journal of Criminal Law and Criminology* (Evanston, Ill.), in his contribution to this symposium, says: "It is possible thus for the student to develop the helpful view that the abnormal, whether in conduct or not, is not separated by a hard and fast line from the normal; that there are almost infinite stages of gradations between the two, but no abrupt leap across a gulf between them."

This writer well illustrates the above quotation from his own pen by his next words in the same paragraph when he says:

"He need not and will not be befuddled by the hazy concept of the subconscious, which is the familiar refuge of the stalled tyro in psychologic research; the tyro who—in all honesty and unwittingly, be it said—breaks the rule of parsimony in scientific research. He anchors his explanation in something that itself needs immediately to be explained, if it

is to be accepted as a whit more valuable from the medicopsychologic viewpoint than the subjects of speculation in the old faculty psychology."

What conceptual construction does he offer as a substitute for the term "subconscious"? If his substitute thus—presto, change—becomes "science," is the central problem of the logic of science merely the problem of the relation between the fundamentally distinct types of hypotheses, i. e., between those which can not be verified or refuted through experience, and those which can be empirically tested?

We have no fixed theory of human knowledge. Knowledge is but an apprehension of facts and a description of those facts in terms that can be comprehended by human intelligence. The fact that the views set forth by the "tyro in psychologic research" have found such ample confirmation by the "rule of parsimony," or by the able contributors to this symposium, whether worded in the same terminology or not, or are arrived at by the same means of investigation, is sufficient justification for the effort put forth by a conscious observer to give to his colleagues an account of what he beheld with his own eyes in the larger school of human activities, where, after all, our theories and methods must be put to the test.

Whether the hypothesis is verifiable or refutable, matters not. It has served to show the connecting link between the normal and the abnormal, between processes of disease and the normal psychophysiological processes of the organism; or, to find the true unity—whatever that may be—wherein the pathological and the normal processes are linked.

As to whether such explanation for the observed order of things, as was given by the "tyro," has served a useful purpose or not, can be estimated by the statement that they have found a sympathetic response in the personalities of thousands of American physicians and proven to be of practical utility in their actual everyday work: and, furthermore, that this hypothesis has furnished a working basis for several books that have followed the publication of his monograph; that it is in no sense out of harmony with the mechanistic hypothesis in which the terms "ceptors," "mechanisms," "reflexes" or "complexes" have been employed, all of which terms and the theories by which these hypothses are made explicable have been accepted and utilized by the writer in the recent article published under his name and entitled, "The Correlation, Unification or Synthesis of Chemo- and Psychotherapy."[1]

In this connection, let it be further remarked that conceptual constructions, or hypotheses, which furnish premises upon which our deductions, or logical explanations for observed phenomena, are based, in all instances are merely tools invented to suit the necessities of the observer. Institutions, hospitals, laboratories, and dead-rooms are not essential to the man who has passed through these kindergartens of medical education; he regards them simply as he does outworn clothes or as toys employed in the days of his infancy but no longer an indispensable requisite to the activities of the growing man.

The New Educators

If medical education never goes beyond the bounds of medical school, institution, and hospital, its growth has been arrested, stagnation already has taken place, and dissolution is bound to follow. There are those of us who have broken loose from these hindrances. We are enjoying the privilege of making employment of our own brains, and, with no desire of becoming arrogant, we make no hesitation in saying that, until the results achieved in the actual clinical work in the various institutions of the world can surpass those of our everyday work as applied to all classes of professional endeavor, we refuse ever again to be followers. Efficiency is not a birthright, and the broad everyday world, wherever the activities of men and women are exhibited, offers opportunities for medical education that are not to be surpassed by any institution on the globe, if only we have passed the threshold of the trap of those educators whose environment is more restricted.

But the new-world view has become a well proven and accepted reality. Pathology is only physiology acting under abnormal conditions; or, as Virchow phrased it in the year 1847: "We have learned to recognize that diseases are not autonomous organisms that have entered into the body, that they are no parasites which take root in the body, but that they merely show us the course of the vital processes under altered conditions."

In referring to this expression of Virchow, Poincairé remarks: "And, if the famous principle in question is only stated with sufficient generality, it amounts simply to saying, in effect: A disease involves a change in the organism; then, if this change is subject to law at all, the nature of the organism and the

[1]Published in *The American Practitioner*, Nov. and Dec., 1913.

reaction of the organism to whatever it is that causes the disease must be understood, if the disease is to be understood."

The laboratory, the hospital, and the medical school are indispensable in helping us to isolate the bacterial and chemical poisons to which the diseased organism reacts, and they are indispensable for teaching purposes; and for these we bespeak the generous support of philanthropists, of the larger social organization, and of the legislative bodies of the individual states where our medical schools are located, in order that they may help these restricted toilers to do their work, for the sake of the incipient qualification of the uninitiated throughout the years to come.

But, for the factors of our environment by which the organism becomes disqualified for the responsibilities of normal citizenship—to the real cause of disease—we must look beyond the restrictions of the laboratory and the hospital.

The Broader Future for the Healing Art

In this broader field, beyond the reach of hospital and laboratory, there is awaiting the opportunity of the well-qualified physician of the future. To the medical man who finds life stale, flat, and unprofitable I would say: "Turn your attention in the direction of this broader sphere of action; learn to recognize the possibilities for individual help that can be given to millions of our fellow American citizens, who only need to 'find themselves,' to understand the true relation of cause and effect as regards health and disease, and to be taught how to use their potentialities of mind and body for the achievement of the highest possible degree of efficiency—*there* is the direction toward which scientific medicine is constantly, gradually, but surely, making its approach."

Disease is a misadaptation to environment —it matters not what be its terminological diagnosis—and to be qualified to give to each individual patient the help needed to maintain a sane mind in a sound body is to be the work of the physician which will, ultimately, bring the most satisfactory results. Herein is now the opportunity for the physician to be of real service; and in doing this service he will enable his patient to find his or her opportunity for a useful, happy, and efficient life.

There are millions of our American people who need the help that we can give them by educational and re-educational methods, used in conjunction with chemo-therapeutic agents, or not, as the individual case may require. Drugs, serums, vaccines, antigens, and antitoxins are in better repute today than they have been at any time in the history of medicine; and at the same time, their administration now is accompanied by more definite results, because their physiological action is better understood and the indication for them more clearly defined. All that we need is, to find some way of educating the laity to appreciate the necessity of coming to us in ample time to correct the incipient functional disorders; thus preventing the development of gross pathology, and in this manner to conserve their efficiency and save them from the inevitable consequences of their violation of the physiological and psychological requirements of health.

The time has come when the patient can come to the physician and ask, "Doctor, am I psychologically, physiologically, and physically right," and we are prepared to answer his question and to show him why, and, if he is not "right," we shall be qualified to give him the aid of our knowledge and thus to enable him to become right. This patient may have passed the diagnostic test of the laboratory and hold a certificate of freedom from diseases of parasitic origin, and, yet, be suffering from a condition such as characterizes any one of half the number of the diseases that last year gave a mortality roll of over ten thousand in the state of Nebraska.

The greater proportion of the deaths recorded from cancer, tuberculosis, "congenital debility," organic heart disease, diseases of the arteries, diabetes, apoplexy, Bright's disease, epilepsy, to say nothing of other physical and mental forms of disease, are due to the maintenance, by the victims, of a condition of abnormal psychology and pathological physiology that favors the development of these disease-conditions, and from which such patients so readily die; all of which could be successfully treated if only they consulted the well-qualified physician in time. Pneumonia is another disease that is possible only where the individual pathological chemistry makes a suitable soil for the invasion of the pneumococci—a condition easy of correction if such patients give us an opportunity to render them service before gross manifestations of disease are developed.

The Importance of a Rational Psychology

The conditions which lead to crime, suicide, murder, as well as to socalled insanity, and to death under the age of seventy or ninety years can be diagnosticated by psychological methods in conjunction with simple physical

tests such as can be made in any thoroughly qualified physician's office.

The great majority of conditions which physicians are called upon to treat—fully nine-tenths of them—can be comprehended only by understanding the psychology of each individual patient; but I do not mean the "sexual-repression" psychology nor such "analyses" as have recently been published from some of the enthusiasts of the Freudian school.

I do not care to enter into the controversy that at the present time is being so fiercely waged over psychanalysis, more than to say that the father-mother complex is the determinant, the most weighty determinant, of the adult personality, and that I am becoming less and less inclined to take cognizance of physical sexual traumas in the etiology of the psychoneuroses, save where such physical habits or perversities of childhood project themselves up into the adult life. I can accept no "psychology" not in harmony with all other branches of physical science, nor with other well-proven branches of applied medical science and art. To my mind, true science can never be at war with any of its votaries, though it ever must remain intolerant of hypotheses constructed for selfish ends.

The Pressing Duty of Society

"Opportunity" is valuable as a therapeutic expedient only as patients come to us in time to prevent the inevitable consequences of their neglect to conform to the life of a sane, normal, efficient human being before gross pathology is evidenced. Health is a natural condition and the rightful heritage of every human being, save those who are constitutional inferiors; the line of demarcation depending upon the results of the intelligent treatment of the individual case, and not merely upon the Binet-Simon mental-scale "test for twelve years of age."

Every boy and girl should be examined by a competent medicopsychological expert before leaving the public schools, or at about the age of sixteen, and equipped to find and fill a place of usefulness in the world, regardless of wealth or social position. They may not need the emoluments that come as the result of useful endeavor, but they can ill afford the loss of the self-development that comes from the free exercise of one's faculties, nor the happiness that results from serviceable endeavor and successful achievement. Even they of the aristocracy need to have their opportunity for becoming doers in the world of thought and action.

Of the educational factors at work today, which in reality inhibit normal thought and action, and of the devitalizing and personality-suppressing influence of such "education" by which individuals are deprived of the opportunity of becoming sane, normal, intelligent men and women, space will not permit me to write. Suffice it to say that science has made only the slightest impress upon the social life of our time and that the most harmful factors in the evolution of American manhood and womanhood are to be found in the educational and religious influences prevalent throughout our land—influences that stand in open antagonism to the factors that make for sanity, for efficiency, and for an equal opportunity in the world.

Every human being born upon American soil should have an opportunity to become a normal, intelligent, useful citizen. Science, education, and democracy should give him that opportunity, and our commonwealth should give him a chance for honest toil by putting an end to the existing monopoly upon the raw products of industry, before our social organization can make the merest pretense of being civilized. Will our legislators hear the cry of the downtrodden millions or will they continue to be the allies of the vested interests in withholding from the children of this great commonwealth their opportunity for an efficient and useful life?

When a group of cells become parasitic, as in the case of sarcoma or carcinoma, jeopardizing the life of the cells of the individual organism, we apply the knife. Shall we not be equally justified in giving the individuals of the larger social organization an opportunity to become efficient citizens or should we merely endeavor to heighten the immunity of the host? In either case, the ultimate result is bound to be the same. If we apply the treatment of "Science, Education, and Democracy," we shall save the lives of millions. If we mean to be "physicians," *now is our opportunity.*

Cactus Grandiflorus

A Neglected Heart Remedy

By FINLEY ELLINGWOOD, M. D., Chicago, Illinois

Editor of "Ellingwood's Therapeutist;" author of Ellingwood's "Materia Medica and Therapeutics," and "Treatment of Disease"

EDITORIAL NOTE.—Professor Ellingwood has promised us a series of papers upon American vegetable remedies. Those who know his work will not miss one of these articles. Next month he will discuss Macrotys.

CACTUS grandiflorus has probably been the object of more diverse opinions during its investigation than any other remedy of the vegetable materia medica. This the editor of CLINICAL MEDICINE has had opportunity to learn, in part from his own experience. It is the consensus of opinion that this is due to the varying character of the methods used in extracting its medicinal properties, and to the condition and character of the plant selected. The truth concerning its clinical action has gradually evolved from the experiments and clinical observations of thirty years. These were made primarily by the Homeopathists, immediately followed by those of the Eclectic school, and finally, by physicians in general, who are unprejudiced in their observations and willing to accept that which is good, without regard to origin or patronage.

Those clinicians who have carefully and persistently *used* the entire list of heart-remedies, all made from reliable herbs (if so derived), unite in the belief that, as a tonic and permanent restorative of normal conditions; for breadth of action; for specific directness; for reliability and smoothness; and for general trustworthiness, cactus takes precedence, as an individual remedy, before the others. In reasonable doses, it does not cause irritation, it seldom exercises any toxic influence, is admirable in its action, and is invaluable when clearly indicated.

I must be forgiven if, after thirty years' constant use, I have formed conclusions concerning its action that differ in many respects from those advanced by other writers, who have, in large part, quoted their observations from writers and from the briefer experiences of those who have used it empirically, rather than rationally and physiologically. I must also be excused for taking some of the statements herein made, from some of my own previous writings.

Physiological Action

The most conspicuous influence of this remedy upon the heart is its nutritional influence—a smooth, kindly, permanent influence in restoring tone to the heart and in strengthening its force, with absolutely no irritation if taken under proper indications, and promoting normal functional activity, while devoid of any undue influence whatever.

It certainly increases the musculomotor energy of the heart; it elevates arterial tension, and increases the height and force of the pulse-wave; and it accomplishes this result by increasing the action of the heart and by a steady increased tonicity of the spinal-motor centers, thus improving their activity and improving the general tone of the circulatory apparatus.

I have previously stated that cactus stimulates the vasomotor centers. In the strictest sense of the word, I doubt a directly stimulating influence; rather it is that of directly and permanently improved nerve-tone. Furthermore, over and above its action upon the heart direct, an improvement of tone in the central nervous system is apparent at times when the remedy is given for its nerve-tonic effect alone, where the heart is weak, but not sufficiently weak to demand direct medication.

Numberless cases of this character have come under my observation, when patients suffering from exhaustion improved so rapidly that it was plainly apparent that some powerful nerve-tonic influence was at work; and this influence many times could not possibly be attributed to any other agent.

Cactus, thus, is *the* heart-tonic *par excellence*, in that it produces increase of action and restoration of function from actually increased nerve-tone, in this way inducing an improved nutrition of the entire nervous and muscular structures of the heart. It produces no irritation of the heart muscle as does strophanthus, nor does it in any case produce any irritation of the stomach; neither is there any cumulation of influence, to appear unexpectedly and inaptly at other times. It exerts both a direct and indirect influence also over the sympathetic nervous system, regulating its action, and restoring normal action there, whatever the perversion.

When the heart is enfeebled, the action of the remedy upon the cardiac plexus will

materially regulate activity in its normal functioning. Furthermore, it has been found that the remedy increases the contractile power and energy of the heart-muscle, through the intracardiac ganglia and accelerator nerves. As I have stated, it certainly improves the nutrition of the heart, because, if taken for a prolonged period, it will remove the entire train of progressive valvular murmurs that are occasionally found to result from protracted debility.

To illustrate this statement. I have now a patient, who, though still under my observation, has taken no medicine for the heart for more than a year, and of whom it cannot now be discovered that she has any heart trouble. This patient three years ago suffered from cardiac dilatation from primary endocardial inflammation following chronic rheumatism. She would have suffocating spells, with palpitation and difficult breathing so severe that it would seem as if there were immediate danger of a fatal termination.

I gave this patient but very few remedies. Macrotys and cactus at first, the former remedy for its action upon the rheumatic condition and to assist the influence of cactus upon the unstriped muscle-fiber of the heart, as its specific influence is exercised directly upon the muscular structures and especially upon the involuntary muscles. Later I gave gelsemium because of a peculiar irritability present in the action of the heart, and in the course of the next fifteen months I prescribed, as indicated, iris for a few weeks at a time, and lycopus. The only remedy that was used continuously was cactus.

Before I discontinued this treatment, and when the patient's heart sounds were almost entirely absent and the tone was such that there was no danger in such a course, I advised a series of baths at Mudlavia, to rid the system of the toxins, which were liable to cause a return of the difficulty. This was an advantageous course, and it was repeated a year later, since which time no remedies have been given. This patient is now in excellent health and abnormal heart sounds have been entirely absent for probably more than fifteen months.

This is one of many cases which have convinced me of the value of cactus grandiflorus in completely curing certain heart troubles.

Specific Symptomatology

The indications which more directly point to the necessity for the use of cactus grandiflorus are: functional disturbances of the heart, weakness of the heart, associated with feeble irregular pulse, some dyspnea, and a sensation of weight or oppression in the chest; all of which conditions depend upon atonicity or enervation. A sensation of construction as of a band around the heart or around the chest is quite commonly observed. As stated, all these conditions depend upon a lack of tone.

If from any cause the patient's heart is rapid and *irritable* from conditions which temporarily result from a stimulated condition or a hypertonicity, the remedy must not be used. This, I think, is the only contraindication for cactus that I am plainly cognizant of. The remedy could not, under these circumstances, but increase the discomfort, and it may produce temporary symptoms that are actually alarming. Fortunately this is seldom found; and, yet, it is very necessary for the prescriber to bear these contraindications in mind.

Therapeutic Action of Cactus

There is almost a consensus of opinion to the effect that cactus is indicated in functional derangements only. As illustrated by the case above narrated, I have grown into the opinion, especially during the past fifteen years, that we are justified in claiming excellent results for the use of this remedy, not only in cases similar to the one described, but especially so in youth and early childhood.

There are many causes, at this period of life, that disturb the heart's action, and produce symptoms that most authorities compare with those of a similar nature in adults. When, however, we come to study the actual pathology in the two cases shown by similar symptoms, we find, occasionally, a wide difference. This is now recognized by most authorities. Those evidences appearing in children are more transient, are subject to temporary conditions, and are altogether more amenable to our specific treatment. This takes into consideration the fact that due attention must be paid to the susceptibility, on the part of children, to the action of directly prescribed remedies, and to the further fact that the plant drugs seem to exercise a very harmonious action in the system of the child.

Cactus in Heart Troubles of Childhood

Concerning the pathology of childhood, I am inclined to think that our present methods of physical exercise, both at home and in school, are altogether too strenuous. I have found in many children mild valvular weaknesses and regurgitant sounds, murmurs, and other similar conditions, which I am confident have been brought on by overexertion.

These lesions will remain and will become permanent unless the child is relieved from the violence of this exercise, or restrained. With rest and systematic oversight as to physical exertion, together with the correctly adjusted use of cactus, these conditions quickly yield. So quickly, indeed, that the prescriber sometimes questions the correctness of his diagnosis.

Rheumatic conditions in childhood, as every reader will have observed, result quickly in heart complications. These complications also follow all the infections, particularly the staphylococcic and streptococcic infections of the tonsillar complications of rheumatism. They are also common with chorea, besides following acute inflammations of other types.

In these cases, cactus has an influence that, while not at first conspicuous, will be plainly apparent if steadily used; and the use of this mild, efficient and always accessible remedy grows upon the prescriber as his confidence is established by the desirable and happy results obtained from it.

A Striking Illustration of Cactus Action

One of the most startling illustrations of this action of this remedy I could present was in the case of a boy who, following an exceedingly severe attack of measles, developed endocarditis and double pneumonia. The boy's father refused to employ a physician until he seemed to be at death's door. Cyanosis was general. The difficulty in breathing was most agonizing; the eyes fairly protruded from their orbits; the temperature varied from 102.5° to 104.5° F.; and the pulse was absolutely uncountable. Consolidation was very extensive.

I saw the boy at 4 o'clock p. m. and thought he could not live until morning. I encased his chest in a hot wet dressing, which was persisted in until I called at 10 o'clock the next day. I administered only three remedies. Belladonna to equalize the circulation, was given every hour in sufficiently large doses to exercise its physiological effect. I then combined aconite and cactus—1-3 of a drop of the tincture of aconite only, with 1 1-2 drops of the fluid extract of cactus, every hour.

To determine the rapidity of the pulse, which, as stated, could not be counted, I timed the movements of my hand with a pencil to the beating of the pulse and made dots upon a sheet of paper for fifteen seconds, then counting the dots, I estimated that it ran over 200 beats per minute.

The next morning the change was indeed a most happy one. The pulse was 120, uniformly smooth, and sufficiently strong. The cyanosis had disappeared, and the respirations (36 per minute) were steady, regular, and satisfactory to the patient. The recovery of this patient was prolonged by other complications, but the conditions of the heart improved steadily under the action of cactus, properly combined with the other required remedies, and ultimately every sign of serious disease had disappeared.

This is only one of a number of instances in my experience that prove beyond any question of doubt the fully restorative power of cactus in the diseases of childhood. Given in the diseases of old age, its influence is more quickly shown on functional disorders; but its characteristic nutritional influence is quickly apparent, especially where the pulse is very feeble and where there seems to be general feebleness of all the organs, directly traceable to the nervous system, and accompanied often by mental evidences, also.

In these cases, cactus is a very competent nerve tonic and, accompanied with phosphorus in proper doses, or with a carefully selected phosphate, or with avena sativa, or, as I have found in very many cases, with strychnine arsenate (from 1-120 to 1-60 of a grain every two, three or four hours, to exercise a gradually strengthening and restorative effect) the general influence of the remedy is very happy. Because of the presence, usually, of chronic conditions, the completeness and permanency of its influence are of course not so pronounced.

Its Sedative Influence

I have found cactus to exercise an excellent influence, in conjunction with aconite, to control the pulse and temperature in feeble patients, especially in the later stages of acute but protracted disease, where there is a feeble pulse, rapid weak heart, and weak and exhausted nervous system. The sedative effect here is direct.

So marked is its influence in strengthening the action of the heart and in improving the nutrition of the brain, thus improving the circulation, that it can be prescribed with great benefit in neurasthenia. There need be no distinct evidence of heart derangement, except feebleness. It is especially in those cases of neurasthenia where there is functional derangement of the heart, with a sensation of restriction or a tight band around the chest, that the remedy is specifically indicated, and where, with this symptom, there is feebleness, nervous irritation and

nervous excitement, it acts as a special sedative.

Contraindications to Cactus

If in addition to nerve irritation there should be an apparent exaltation of nerve-force, a temporary excess of strength in the cardiac action or increasing arterial tension, as just stated, cactus is contraindicated. The conditions of excess or of defect of nerve-force and heart-power are, thus, the two conditions that, in my experience, seem to be most necessary to be considered in prescribing cactus, as this enables us to determine the indications or the contraindications. These must especially be considered in ordinary cases of palpitation. I have recently had a case in which, from an error in determining this fact, I materially increased the trouble temporarily by prescribing cactus.

Some of the Uses of Cactus

The most common cause of functional irritability of the heart, perhaps, is gastric or gastrointestinal irritation. I learned long ago to depend upon this remedy as a regulator of this form of irritability, not neglecting to neutralize excessive acidity or to secure a normal condition of the gastric and intestinal juices, and then prescribing this I have seen only satisfactory results.

A very happy effect is obtained by using this remedy in the latter stages of nearly all severe acute diseases, at the beginning of convalescence. In cases of pericarditis, as well as in any form of carditis, as above mentioned, careful prescribing will adjust it most satisfactorily.

In Place of Digitalis

In pneumonia, it will fully take the place of digitalis, with a greatly broadened field, except perhaps with the single exception that there are times when heart failure in the latter stages of pneumonia occurs so suddenly that a large dose of digitalis is at once needed; but, with this exception, if the prescriber has no confidence in treating pneumonia unless he is giving something to support the heart, he can produce no harm whatever in prescribing cactus early. This certainly cannot be said of digitalis. It, thus, nourishes the central nervous system and the muscular structure of the heart, preserving these organs against the possibility of any sudden giving away.

There is a form of headache that is characterized by oppression in the top of the head, nervousness, and functional disturbances of the stomach and other organs, and which is relieved by cactus. This is common to ladies at the menopause and results from sympathetic disturbances within the pelvis. At this time there also occur hot flushes and other disagreeable evidences or results of the climacteric, which likewise will yield quickly to cactus if given in small doses frequently repeated.

In cases of melancholia, nervousness, with irritability of temper, hypersensitiveness, vague fears and fancies, and the over-acute imagination that often is present at this period, the remedy will be found to be a good one, especially if combined with hellebore, at certain times, or with small doses of hyoscyamus if there be insomnia, or with pulsatilla if there be fear of impending danger.

The Heart of the Athlete

We do not, at present, have to contend with the bicycle-heart, but are confronted by a similar heart condition, brought on by excessive athletics, as also by the tobacco-heart of the cigarette-fiend, or of the inveterate smoker or that following masturbation or the use of alcohol. All of these yield to this remedy if dosage is correctly adjusted.

In hysteria in unmarried women or in that of early life, there develop a number of the conditions that yield to cactus if properly combined with the other indicated remedies. It seems to restore to a certain extent the function of the pelvic organs, while promoting a sense of general well being. In the male, if cactus is combined with avena sativa or with staphysagria, impotence is overcome, any results of dissipation will disappear, and all the organs of the body will show an improved tone.

One of our observers has used this remedy for many years for correcting subnormal temperature, and I myself have had considerable experience with it in this direction. There will be encountered a few such cases that are not influenced by it; many patients, though, will show improvement after a day or two and ultimately will recover completely, exhibiting a normal temperature and freedom from previous minor symptoms of heart derangement that might have been present.

As To Proper Dosage

I have never seen toxic effects following the administration of this remedy when it was properly indicated. Foreign authorities claim that 30 drops of a strong tincture

may be given at a dose. I myself never have given above 5, but 2 or 3 drops every two hours is a better method of prescribing it than 6 or 8 drops three times a day, as the action of the remedy is somewhat evanescent, so that doses must quickly follow each other in rather rapid succession. In children, from 10 to 30 drops in a 4-ounce mixture, a teaspoonful every two or three hours, will constitute proper dosage.

Concerning the pharmaceutic concentrations of cactus and of other vegetable remedies, I do not believe that the alkaloids or other forms represent in every detail the action of the plant drug. Consequently ,we Eclectics find it necessary to study the clinical action of the active principles independently of any study we have made of any given galenic preparation that is derived from that whole plant.

The concentration of cactus, known as cactoid, however, is not alkaloidal in character, and I think that as nearly as does any other one galenic this concentration represents the entire plant drug. In fact, judging from my observations, cactoid corresponds very closely with the alcoholic tinctures of cactus—so closely, indeed, that I should have no hesitation in prescribing the granules of cactoid, as I have specified above, in place of the carefully prepared fluid preparation of the drug.

Furthermore, I believe that correctly made standard concentrations of this character and the resinoids, such as macrotoid, letandroid, irisoid, besides some others, can be depended upon to represent more fully than an alkaloid would the exact action of the whole plant, because in these concentrations there is not that separation of active principles from other medicinal principles as is the case with the alkaloids.

Ambulatory Treatment of Fracture of the Patella

By BENJAMIN H. BREAKSTONE, B. S., M. D. Chicago, Ill.
Professor of Surgery, Bennett Medical College; Attending Surgeon, the Jefferson Park Hospital

EDITORIAL NOTE.—This brief but valuable paper is a further contribution to Doctor Breakstone's series on "Everyday Surgery," which has proven of such exceeding interest to the "Clinic" family.

A PAPER of nature similar to this one was read by me before the Alumni Association of the Illinois Medical College in 1899. This by way of introduction.

The patella is a sesamoid bone and is contained within the tendon of the quadriceps extensor muscle and, therefore, forms part of that tendon. Thus, the patella itself is outside of the knee-joint, still, is very close to it, being separated only by a ligament and the posterior surface of the tendon of the quadriceps extensor. Over the patella lies a sac (known as a bursa) containing serous fluid which, when overdistended with fluid, causes a condition known as housemaid's knee. In nearly all fractures of the patella caused by direct violence, this bursa is injured and then very often is filled with blood.

A fracture of the patella is one of the very few fractures in which we have a real transverse break, although there may be many other varieties. If the fracture is a simple one, the method of management here outlined is by far the best. Even if the fracture is compound and not multiple I prefer this method. We certainly get better results with this method than we do either by wiring or by using the Lane plates.

The x-ray of a fracture of the patella must be taken by an experienced man, as, being a sesamoid bone, it does not throw as clear a shadow as the other bones, which contain more calcium salts.

The treatment I have been employing with great success for the past sixteen years (and as described in the paper of 1899) is as follows:

Place the patient on his back in bed, with the affected limb extended and elevated at an angle of about forty-five or more degrees with the body. This relaxes the quadriceps extensor muscle. Pull the upper fragment down toward the foot as far as possible and have an assistant hold it there while you apply an adhesive strip snugly tight around the lower end of the thigh, just above the superior margin of the patella. This holds the upper fragment down and prevents the quadriceps extensor from pulling it up again. Then pull the lower fragment up (which is always easier, as there is only a tendon to deal with) and apply an adhesive strip, likewise, around the upper part of leg just below the lower margin of the patella.

Now, having the proximal and distal fragments accurately approximated, the next step is, to prevent a lateral movement. This

is done by applying an adhesive strip from 8 to 11 inches long and about 1 to 1½ inches wide, according to the size of the patient's limb, first around the upper fragment and then likewise around lower fragment, in conformity with the margins of the patella. This induces a thorough fixation. Then, to prevent effusion, a cotton compress is put on over the patella and, to reinforce the adhesive plaster, a roller bandage is applied from the middle of the leg to the middle of the thigh, with a posterior splint, to prevent flexion of the knee-joint. If there is an extravasation of blood, that must first be emptied with a trocar.

The advantages of this procedure are these:

1. No need of anesthetic.
2. Simplicity.
3. No scars, if fracture is simple.
4. No danger of infection.
5. One can do it with any available person assisting.
6. Results are as good as with any other method, if not better.

The patient is kept in bed and treated on general principles from three to six days, after which time he is allowed to get up; but the dressings are to be kept up for several weeks longer. No claim is made that this treatment is applicable to all kinds of fractures of the patella, but the following conditions are necessary for success.

1. The fracture must be a simple one.
2. The quadriceps extensor must not be atrophied, thereby preventing approximation of the fragments.
3. If great swelling and contusion exists, treat that first.

IN SOME FAR PORT

By JOHN RHUDDLAU

Moments there are when o'er the soul
Great waves from mystic oceans roll,
Or seem to roll, and bring with them
Strange weeds and many a starry gem
From shores not found upon the chart
Either of mind or of the heart.
And so across the wondrous realm
Of Time and Tide we hold our helm
Upon its course; nor doubt the dream
Nor fear the menace of the stream,
Hoping the Power that bids man sail,
In some far port, will cry him Hail!

Refraction for the General Practitioner

By THOMAS G. ATKINSON, M. D., L. R. C. P. (London), Chicago

Author of "Essentials of Refraction"

EDITORIAL NOTE.—Are you following this series of papers upon refraction? If not, then you are missing a good thing. Refraction work is easy to learn, is pleasant, profitable, and opens up a splendid field for good men. Look up the back numbers in Doctor Atkinson's serial. Write him for any details you do not understand fully.

More About Astigmatism

TO JUDGE from the communications I have been receiving from various quarters, in response to my preceding article, I do not seem to have succeeded in making the true nature of astigmatism fully clear to my readers—which, indeed, is not surprising to me, when I recall the difficulty I myself experienced in getting a proper concept of this condition, simple as it is. The trouble, I think, lies in its very simplicity. Most of us are looking—at least I know I was—for something very complex in the way of solid mathematics.

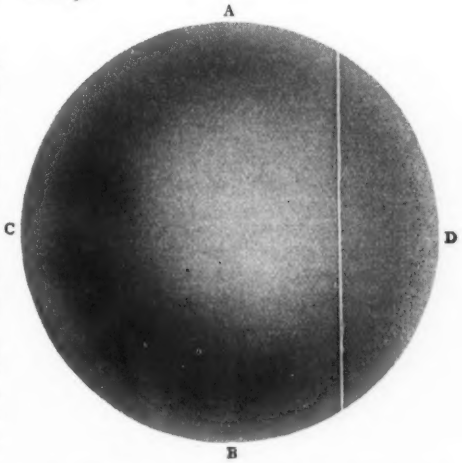
The astigmatic eye, as I already have explained, is simply an eye in which the spherical curvature of the cornea (or sometimes of the crystalline lens) has been flattened in one direction and bulged in the other. There really are only two meridians, so far as this condition is concerned—the meridian in which the sphere is flattened, and the one in which it is bulged.

If you will take a hollow rubber ball or an orange, or some other soft spherical body, and, putting your two hand-palms against it at two opposite poles, will squeeze it so as to shorten the diameter between these two poles, you will see that the curvature of the body has become more convex in the direction in which you have shortened it. Now, at the same time that you are shortening the diameter between the two compressed poles, you are, of course, lengthening it in the meridian at right angles to the direction in which you are compressing; and the curved surface around this lengthened meridian is less convex than normal.

Referring to the figure of the sphere shown here (A B C D), if you compress it from A to B, then the curvature of the sphere from A to B is more convex than usual; at the same time, the circumference from C to D becomes longer and the curvature from C to D less convex than usual. It makes no difference in which direction you may make the compression represented by A B. In the illustration it is made vertically. But whether it be made vertically, from side to side or catercornered (obliquely), always the direction in which the sphere bulges will be exactly at right angles to that at which it is compressed.

The Optical Meridian Defined

Now, then, if we consider this sphere as a refracting body, it is plain that in this compressed condition it can not, like a perfect sphere, focus all the rays entering it at one point. When the focus is adjusted for the most convex curvature, it is out of adjustment for the one least convex; and conversely.



And this is the condition of the astigmatic eye. It is not a question (as I find many of my correspondents trying to figure out, exactly as I myself tried to figure out for a good many years) of one, single, meridian; that is, considering a meridian as being represented by one of the lines on the schematic fan. For—and this is the point—a meridian is not one of the radii of a sphere; rather, a meridian is a *direction around the sphere*. So, in the case of the eye, a meridian is a *direction across* the cornea.

Astigmatism, therefore, is an error of curvature clear across the cornea, and all over the cornea, *in the direction* indicated by the fan-lines that are black and faint, respectively.

These simply indicate the direction in which the cornea has been compressed and bulged.

Sometimes the eye the cornea of which is thus distorted is a long myopic eye, in which both the focus of the most convex and that of the least convex meridian fall inside the retina; in which case the astigmatism is *compound myopic*. Sometimes it is a short hyperopic eye, in which both the focuses fall beyond the retina, and in that case it is a *compound hyperopic* astigmatism. Sometimes, again, the compression and bulging of the respective meridians make one focus fall inside and the other outside the retina; then it is a *mixed* astigmatism.

How to Correct Astigmatism

As to the correction of an astigmatism, I find much the same confusion still prevailing, in spite of my explanation; so, I will try to make that a little clearer, too.

Manifestly, we have only two directions of abnormal curvature to correct in any eye. If we take any one direction of curvature and make it normal, and then make the direction at right angles to it normal, we have made the eye a perfect sphere. So, in astigmatism, we have to concern ourselves with only the two chief meridians; namely, the direction of curvature in which there is flattening, and the direction of curvature in which there is bulging.

Having found these two chief meridians (by the methods described last month), the rule is, always to correct the *least convex* curvature, by means of a *plus* cylinder equal in strength to the difference between the two curvatures. This, naturally, brings the focus of this curvature forward to coincide with the focus of the other curvature (wherever it may be), and makes a spherical error of it, equal to the error of the curvature which we did not correct. Then a spherical lens of this strength will take the two foci to the retina.

Three Important Rules

The three rules, therefore, for correction of astigmatism, are as follows:

1. Correct the *least convex* curvature, i. e., the one that requires the most plus lens to make it normal.

2. Correct this curvature with a *plus cylinder* equal to the difference between the two curvatures.

3. Complete the correction with a sphere, of strength and curvature equal to the uncorrected curvature.

Example *a:* 90 curvature requires plus 2 to make vision normal; 180 requires 3 D. Correct the 180 curvature, because it is the least convex (requires the greatest plus to make it normal). Correct it with a plus cylinder equal to the difference between the two, i. e., plus 1 D. axis at right angles, i. e., at 90. Then complete with a sphere equal in strength and curvature to the uncorrected one, i. e., a plus 2 D. sphere.

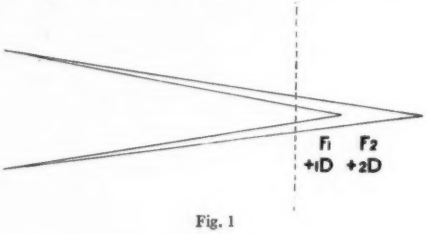


Fig. 1

Example *b:* 90 curvature requires plus 1 D.; 180 requires minus 1.50 D. Correct the 90 curvature, because it is the least convex. Use a plus cylinder equal to the difference between them, i. e., a plus 2.50 D., axis at 180. Complete with a sphere corresponding to the uncorrected curvature, i. e., minus 1.50 D.

Example *c:* 90 curvature requires minus 1 D.; 180 requires minus 1.50 D. Correct the 90 curvature, because it is the least convex (takes the greatest plus lens). Correct with a plus cylinder of the difference between them, i. e., plus .50 D., axis 180. Complete with a sphere corresponding to the other curvature, i. e., minus 1.50 D.

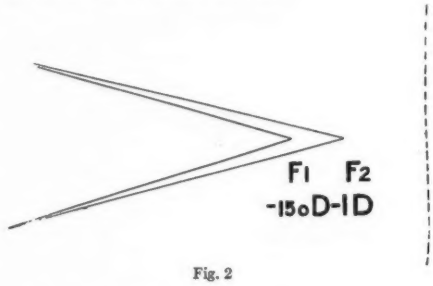


Fig. 2

Let us make this still more plain by means of diagrams. In Fig. 1, both curvatures focus beyond the retina; that is, they are both hyperopic. One (F1) is hyperopic 1 D., the other (F2) is hyperopic 2 D. The rule is, to bring the backmost focus forward to coincide with the foremost; never to take the foremost back to the backmost.

Now, then, a plus cylinder of the difference between F1 and F2, i. e., of 1 D., will bring F2 up to F1. Now both curvatures are

hyperopic alike, to the extent of the uncorrected curvature F1, and a sphere corresponding to this, namely of plus 1D, will bring both foci to the retina.

In Fig. 2, both curvatures are myopic, their foci falling within the retina, F1 being 1.50 D. myopic, F2 being 1 D. myopic. In this case, we correct F2, because it is the least convex. A plus cylinder of the difference between F1 and F2, i. e., of 0.50 D., will bring F2 forward to coincide with F2; then a sphere equal to F1 will take them both back to the retina, namely, a minus 1.50 D.

Once more. In Fig. 3, one curvature is myopic, its focus falling inside the retina; the other is hyperopic, its focus falling beyond the retina. F1 is 1 D. myopic, F2 is 1 D. hyperopic. In this case, we correct F2, using a cylinder equal to the difference between them—which, in this instance, really is the sum of the two with the sign changed, i. e., plus 2 D. This, as you see, will bring F2 clear forward (overcorrecting it), to coincide

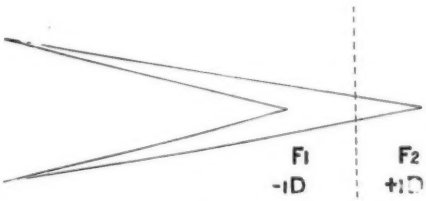


Fig. 3

with F1, making them both minus the same as F1. A sphere corresponding to F1, i. e., of minus 1 D., will then carry them both back to the retina.

Thus, the three rules I have given work out correctly every time. Even where one of the curvatures is normal, as in Fig. 4, if that normal curvature be the least convex of the two, we actually correct the normal curvature with a plus cylinder that will bring it forward to coincide with the myopic one, and then carry them both back to the retina with a minus sphere.

Thus, in Fig. 4 we do not, as might be supposed, carry F1 back to F2 with a minus cylinder of 1 D., but we bring F2 forward to F1 with a plus cylinder of 1 D., and then take both back again to the retina with a minus 1 D. sphere. But where one curvature is normal, and the other is the least convex, as in Fig. 5, then, of course, we simply bring F2 up to F1 with a convex cylinder, and as both are now on the retina, the correction is complete.

In my article on the retinoscope, I promised to say more, at some future time, on the estimation of astigmatism by this method.

When we make an examination of the eye with the retinoscope, we generally begin by shadowing the horizontal meridian; that is

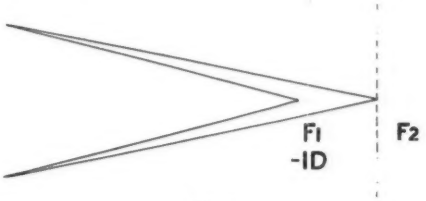


Fig. 4

to say, we begin by tilting the mirror laterally, from side to side. If we find an error in that direction, we begin to put on plus or minus lenses, as the case may be, to correct it.

As we proceed in this way, there are two or three things that usually warn us that we have an astigmatism to deal with. One of these is that, as we approach more and more nearly to the correction of the meridian we are correcting, a band of light stands out in the eye, with its axis corresponding to the axis of error. Another is, as already said, that, as we tilt the mirror to and fro, moving the shadow from side to side, the edge of the shadow appears oblique instead of straight up and down. Still another is, that the shadow does not move with equal rapidity on both sides; one moves more rapidly and is more cleancut than the other.

Both the band of light and the oblique edge of the shadow give us a clue to the axis of the astigmatism. Having found the two chief

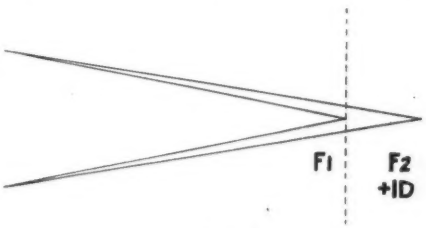


Fig. 5

meridians in this way, we simply shadow them separately, first one and then the other —just as we shadowed the one meridian in spherical errors—and get the two results. Then we calculate the cylinder and sphere to be used in correction, on the same principle as described under the subjective method.

Suppose, for example, that as we shadow the horizontal meridian, we find the shadow moving against the mirror, taking more than 1 D. to reverse it. This eye is hyperopic in this meridian. As we keep mounting plus lenses to correct it, we finally see a band of light appear in the pupil, with its axis upright; this remaining there after we have fully corrected this hyperopic meridian. Then we know we have an astigmatism, in the horizontal and the vertical meridians, and we proceed to measure the vertical meridian, by tilting the lens up and down instead of from side to side, until we correct this upright meridian.

Now we have the correction for the two chief meridians; and we prescribe our cylinder and sphere in exact accordance with the three rules above laid down.

Suppose, again, when we begin shadowing the horizontal meridian, that the shadow, instead of being upright, is oblique. Then we know we have before us an astigmatism, of which one of the chief meridians lies in the direction in which the shadow is tilted. Consequently, we stop shadowing the horizontal meridian, and proceed to measure the chief meridian of the astigmatism, by tilting the mirror at right angles to the edge of the shadow. Having found the error in that meridian, we shadow the one at right angles to it; then calculate our correction as usual.

The Care of Milk in the Home

By CHARLES F. LYNCH, M. D., Terre Haute, Ind.

MUCH of the money expenditure by our large municipalities in an effort to ensure a pure milk supply will remain a more or less misdirected effort until some appropriate method is adopted for educating the general public as to the proper care of the milk in the home. What is the use of passing drastic ordinances compelling the dairymen and milk-dealers to have proper sanitary conditions surrounding the production of the milk if this same milk is not properly cared for after it is delivered to the ultimate consumer?

Before any benefit can result from such legislation, the people must be awakened to the fact that milk can be just as easily contaminated after it has been delivered to the home as before it leaves the hands of the dairyman or city milk-dealer. The belief is only too common that, if the milk is clean when it is received, it can be subjected to any kind of conditions in the home without harm.

Carelessness in Handling Milk

It is a frequent scene, especially in our cities of 5000 to 25,000 population, to see any and all kinds of vessels—crocks, pans, buckets or open dishes—standing on the front porch all night, to receive the milk from the dealer's wagon in the early morning. Occasionally these vessels are provided with close-fitting covers; ordinarily, however, they are left unprotected. As a result, when the milk is poured into the vessel by the dairyman it receives a liberal contamination of dust and dirt, all heavily laden with various breeds of microorganisms. Very often this milk will stand several hours exposed to further additions of dust and dirt, while the warm rays of the morning-sun supply ample incubation-heat for the merry multiplication of the noxious germs. By about 8, possibly not until 10 o'clock, the milk finally is removed from its exposed position and taken into the house.

It may now, perhaps, be strained, to remove obvious particles of dirt or any hungry fly who may have been so unlucky as to get beyond its depth while purloining his morning meal. As a rule, however, large particles of dirt are simply removed with, or without, a spoon, and in like manner the flies. It is not understood by the people that the presence of these gross particles of dirt is of very minor importance in comparison with the myriads of bacteria that have been carried into the milk by it.

If it is hot summer weather and the family keeps an icebox, the milk may be crowded into this receptacle together with cheese, meat, cabbage, butter, and miscellaneous other articles, there to absorb odors and gain further contamination of course. If the chest is sufficiently cool, the reproduction of the bacteria may here be temporarily stayed in a measure.

However, in the home where the purity of the milk is most essential, that is where one or more children are dependent upon the milk as a principal article of diet, the icebox is a comparatively infrequent luxury. The milk-crock is simply brought in and stood on the kitchen-table or a convenient window-sill and the contents are dipped out with a not

overly clean cup as needed. During the regular daily household routine, when the floors are swept and the air is filled with bacteria-laden dust, the milk is covered over with a film of dirt, the same as the surrounding furniture. The furniture later is dusted off, but only too often the milk even now is left uncovered, to absorb more filthy contamination. And all the while the bacterial flora goes merrily on with its process of prodigious proliferation.

The Milk Change is Not Observed

Unhappily the physical properties of milk are such that it does not reveal by any obvious change the nature or extent of its contamination. These deleterious results are shown most frequently in their first noticeable manifestations as a profound gastrointestinal inflammation on the part of the child using it as a food.

In those cities which are fortunate enough to possess an ordinance requiring the selling of milk in closely capped bottles, conditions are a little better, in that some of the sources of contamination are removed. But even bottled milk contains a certain number of bacteria, and, if carelessly exposed to the sun, these few bacteria will rapidly multiply and become myriads.

Then, in opening the bottle, only too frequently the cap is pushed down on one side, to spring it at the opposite side. The result is, the cream underneath is spurted up over the bottle-cap, washing down the dirt from its top surface into the bottle. Besides, very seldom is the rim of the bottle wiped off before the milk is poured out over it; and this rim almost invariably is more or less dirty. And this dirt is washed off into baby's milk-bottle or milk-cup.

Then, when about half the milk is used, the bottle is stood on the kitchen-table or some other convenient place and left there until the next meal—and a very interesting part about the matter is that almost invariably it is left uncovered. The result is a liberal contamination with dust, flies, and gross dirt. Not infrequently when one of the older children wants a little milk, it drinks directly from the bottle.

How the Baby Suffers

In the case of the baby, the milk is poured into a nursing-bottle, which in itself may be fairly clean, but which is provided with a foot or so of rubber hose, instead of with the far more sanitary simple nipple. These long rubber tubes are a veritable bacterial incubator, and in passing from the bottle to the baby the milk is literally filtered through a bacterial nest and becomes practically an emulsion of bacteria rather than an emulsion of fats.

Now, if we are to derive any lasting benefits from our modern system of milk inspection and sanitary regulation, we must educate our clients to a full appreciation of the importance of proper home care of milk.

Milk must not be received in open, unprotected vessels.

It must not be exposed for hours to bacterial contamination by dust, flies, and small animals.

It must not be exposed to the heat of the morning-sun.

It must not be left uncovered on the dining-rooms or kitchen-table, to be contaminated by dust stirred up in the regular household routine, to say nothing of flies.

It must be kept in closely covered vessels, or, better still, in tightly capped bottles. An inverted cup forms an excellent cover for the opened milk-bottle.

It must be kept in the icebox in a part separate from other foods, especially cheese, sour cream and garlic.

Baby-bottles should be provided with sanitary simple nipples that can be thoroughly sterilized, and not with the long hose that is only too frequently seen.

During the summer months, milk of uncertain bacterial purity should be pasteurized if intended for use by the baby. This pasteurization can readily and cheaply be accomplished at home by a very simple apparatus and with very little trouble, as explained in a previous article.

Don't forget that milk is just as susceptible to contamination in your own and your patients' homes as it is in the dairy. It must be protected at every step in its journey from the cow's udder to baby's stomach.

Scrupulous care in the dairy and by the dealer is a waste of energy if the product is to be grossly contaminated and turned into bacterial culture after being received in the home.

These remarks apply with equal force to certified as well as to ordinary market-milk.

What Others are Doing

NEOSALVARSAN IN PULMONARY TUBERCULOSIS

Acute pulmonary tuberculosis has such a tendency to progress rapidly to a fatal issue that any method of treatment which promises the arrest of the progress of the disease is certain of interest. P. Horton-Smith Hartley (*Lancet*, June 6, p. 1602) is treating patients thus affected with intravenous injections of neosalvarsan, usually giving it in 0.9-Gram doses, dissolved in 125 Cc. of freshly distilled water. In a number of cases reported, most striking improvement followed these injections, the temperature not infrequently falling to normal, with improvement in all the symptoms of the disease.

The author concludes that, while neosalvarsan is not specific for acute tuberculosis, it certainly does have the power of influencing many cases of active tuberculous disease of the lungs and, therefore, merits a more extended trial.

CONSEQUENCES OF THE HYPOPHYSIS DISEASE

Reviewing the progress of our knowledge concerning the causative connection subsisting between certain maladies and lesions of the pituitary, or hypophysial, gland, C. Winkler also adds data (*Nederl. Tijd. v. Geneesk.*, through *Muench. Med. Woch.*, 1913, No. 13) from his personal observations.

Thus, we are reminded that enlargement and increased activity of the hypophysis may give rise to acromegaly, gigantism, hypertrichosis, diabetes (insipidus and mellitus), and sudden access of blindness; while hypopituitarism (shrinking and diminished secretion) is followed by dystrophia genitoadiposa and somnolency. Lesion of the stylus of the gland results in instant death.

Hyperpituitarism is a strumous state of the gland, while the opposite condition is brought about (generally) by pressure from an adjacent tumor. In the light of more recent knowledge, correct diagnoses have become possible, and operative intervention has brought about some striking cures. The best route to the gland is through the nares. It is well to bear in mind these relationships when confronted by puzzling cases of this category.

CALCIUM DEFICIENCY THE CAUSE OF THE RAPID DECLINE OF TUBERCULOUS PREGNANT WOMEN

J. D. Drennan is of opinion (*Amer. Jour. Obstet.*, 1913, No. 5) that the rapid progression of the tuberculous process in gravid and nursing women has its cause in a calcium deficiency. The child, during the period of gestation and lactation, abstracts more calcium than such a woman's system can bear under the circumstances—calcium that is needful for the calcification of the infectious foci.

TEST FOR THE LIPOLYTIC FERMENT IN MILK

Milk naturally contains lipolytic enzyme—that is, a ferment capable of splitting lipoid, or fatty, bodies—but human milk contains considerably more of it than cow's milk. This fact is utilized by H. Davidson, of Berlin (*Zeit. f. Kinderh.*; cf. *Muench. Med. Wock.*, 1913, p. 1678), to distinguish between the two. The simple test consists in merely adding a few drops of tributyrin, when soon a pungent odor of butyric acid is evolved in the case of human milk, while even after twenty-four hours cow's milk scarcely gives off any odor of that volatile acrid fat-acid.

FUNCTION OF CECUM AND APPENDIX

Arthur Keith is unable to agree with those who consider the colon and the appendix as without function, and rather an element of danger to man. In support of his contention, Dr. Keith points out (*Brit. Med. Jour.*, Nov. 30, 1912) that the cecum, of men as well as of animals, displays all the anatomical characteristics of an organ capable of functionating, adapted to its object, and fit to adjust itself to the varying diet of the individual. The ileocecal valve is provided with a sphincter that is under nervous control

and separates the enzymic digestive process in the ileum from the bacterial one in the cecum.

The same is true of the appendix; comparative anatomy demonstrating that it is a specialized portion of the cecum, instead of a rudimentary character, although its object is not as yet understood. The greatly increased frequency of diseased conditions of the appendix can satisfactorily be explained by the sudden dietary changes of modern life, to which the organ, in this rapid period of rapid transition, has been able to adjust itself. In this connection, the author mentions the fact that captive chimpanzees living on human diet contract appendicitis.

HYPOPHYSIAL EXTRACTS IN OBSTETRICS

A number of hypophysial extracts are now on the market, under the following names: extract of hypophysis, glanduitrine, hypophysine, pituglandol, neuro-hypophysine, pituitrin, and vaporol. The indications and contraindications to the use of this body under its various names are described by Metzger in the *Paris Medical* (Nov. 1, 1913, p. 509).

While pituitary extract has been recommended for producing abortion, for bringing on labor, and to hasten the expulsion of the ovum in abortion already under way, Metzger restricts the practical utility of the remedy to its stimulant action upon the process of delivery. His conclusions are based upon the observation of 62 cases seen at the Clinique Tarnier, in which the drug was utilized.

It hastens the termination of labor in two ways: first, by exciting uterine contraction, and, second, by hastening dilatation of the os. The uterine contractions appear within from two to ten minutes and become more and more constant until they finally become subintrant. The dilatation of the os progresses rapidly, being slower at the beginning of labor, more rapid as it approaches termination.

In the majority of cases, the drug was injected when dilatation was complete, and it was the effect upon the progress of the presenting part that was most remarkable. When the head is beginning to engage at the superior strait, when the pelvis is slightly narrow and especially if it is flat, one may say that, if the head can pass, it will pass nearly always under the stimulation of the energetic contractions produced by this agent. With the beginning of expulsive efforts, the effect of the remedy often is very remarkable. In 23 injections made when dilatation was complete, delivery was completed, in 14 cases, within half an hour; in less than an hour in 6 others.

Of especial interest, according to Metzger, is the influence of the pituitary extract upon the hemorrhage following delivery. He agrees with Jager, who thinks that we may fear uterine inertia and hemorrhage, providing the drug is injected more than an hour prior to delivery. In its effect upon subsequent hemorrhage, the drug is inferior to preparations of ergot. All authors agree that in preventing postpartum loss of blood ergot is to be preferred to hypophysial extract.

The contraindications to the use of hypophysial extract are any notable disproportion between the presenting part and the pelvic measurements. In such danger, the drug may produce uterine rupture. It should also be employed with prudence in the case of women suffering from pulmonary, cardiac or renal affections. The physician should always keep careful watch of the fetal heart sounds, in the course of the employment of this medicament.

THE DISCOVERY OF SPECTACLES

There is an interesting historical sketch upon the history of spectacles in *The British Medical Journal* of October 25, 1913 (p. 1049), by Dr. George H. Oliver. After an exhaustive study of the question, Dr. Oliver arrives at the conclusion that the invention of glasses should be ascribed either to Salvino or to Spina. The former was a Florentine, and it is claimed he invented spectacles in 1285. He was buried in Florence, and his tomb bore the following inscription: "Here lies Salvina d'Armati of Florence, the inventor of spectacles. God forgive him for his sins. Died in the year of our Lord 1317."

Spina was a Dominican friar, in the cloister of St. Catherine in Pisa. The archives of this monastery relate that he died in 1318, that he was a good man, of retiring disposition, and that he understood how to reproduce anything he saw or heard about.

According to one story, an English monk, Roger Bacon, to whom also the discovery of spectacles has been attributed, on his way to Rome to see the pope on a matter of business for his order, was compelled to stop for a

while in Florence and thus became acquainted with Spina, so that some claim that Spina got his inspiration directly from Bacon.

Bacon, unfortunately, had a bad reputation in clerical circles. It will be remembered that he was the inventor of gunpowder, and, although in scientific knowledge he far excelled his contemporaries, he was looked upon in Italy and elsewhere as dabbling in witchcraft and his work was considered the work of the very devil himself.

It is interesting to learn that the first educated medical man to mention glasses was Bernard Gordon, who was trained at Salerno and was a professor in Montpellier. Fully in accord with the principles of his profession in all times, Gordon declared that spectacles were unnecessary, thanks to his own remedies for eye complaints. From this time on, even into the beginning of the nineteenth century, physicians generally exhibited great hostility toward the wearing of glasses, and they were made, prescribed and fitted largely by empirics.

It was many years after the discovery of spectacles before the laws of optics relating to lenses were discovered, and we owe most of the important facts concerning the discovery of these laws to the immortal Kepler, the great astronomer and mathematician of the seventeenth century.

THE ABBOTT TREATMENT OF CURVATURE OF THE SPINE

An American method of treating scoliosis, which is more generally known abroad than it is at home, and which is being extensively used and praised, in particular by the French surgeons, is the method devised by Dr. E. G. Abbott, of Portland, Maine. This method is described briefly by Dr. J. Torrance Rugh in *The Pennsylvania Medical Journal* for March. He proceeds as follows:

The patients are placed in a horizontal position upon a hammock having one side much shorter than the other and stretched in a frame. The convexity of the patient's back is placed on the short side of the hammock. so that the concavity, being without support, may sag downward as far as possible. By means of bandages, the high shoulder (convex side) is drawn downward and backward, the low shoulder is pulled forward and upward, the legs are drawn upward in marked flexion, the pelvis is fixed in a horizontal position or twisted so as to assist in overcoming the spinal deformity, and the chest is drawn backward and rotated to the concave side as much as the patient can bear. Protective pads are properly placed and other padding is placed on the concave side (to be removed as soon as the jack is applied), to make room for the body as it is pushed over in correction. After the plaster jacket is applied, it is trimmed to the desired corrective shape, and openings are made to allow the introduction of pads of felt laterally over the convexity of the ribs and anteriorly over the chest deformity.

The patient is given exercises (such as hanging by the low arm, deep breathing, etc.) daily, to stretch the spine and increase its flexibility. Felt pads are introduced under the jacket as soon as the body shows signs of yielding, and this is repeated as often as the patient can bear it or as the body yields. This work is continued until the body is pushed to the opposite side, when, if correction is not complete, another jacket is applied and the treatment continued until the desired results are obtained.

The length of time that the jacket will have to be worn will depend upon the industry, perseverance, and age of the patient, the severity of the deformity and the length of time it has been present. As a rule, however, it can be entirely removed within eight or ten months or less; but the exercises must be continued for at least two years, and possibly for four or five.

EXPERIENCE WITH THE MODE OF EXHIBITING EMETINE

Ordinarily, Martin Mayer (*Wien. Med. Woch.*, 1914, No. 5) affirms, one will not exceed 0.05 Gram as the dose of emetine hydrochloride in treating amebic dysentery. Altogether, the proper dosage still is somewhat in the experimental stage; however, these patients seemingly can bear relatively large amounts without inconvenience.

The author cites Baermann and Heinemann (l. c. 1913, Nos. 21 and 22), who have administered intravenously as much as 0.25 Gram (grs. 4). He himself has given it, in two very severe cases of amebic dysentery, hypodermically, twice a day, in doses of 0.05 Gram, without eliciting the slightest unpleasant effect, while the clinical cure was "amazingly" rapid.

Mayer reports one marked concomitant action of emetine, though, which he observed in a number of patients treated for dysentery —amebic, and one of the lamblia type (described elsewhere)—and that is, obstinate

constipation. For this reason, Mayer has decided in future to associate from the very first cathartics with the emetine.

His idea is, to give a physic every day (best, probably, a saline) during the emetine-course; and he strongly urges others to try this out. Possibly, he surmises, such a course may simultaneously prevent the too rapid closure of the intestinal ulcers, and with that the occlusion, in the deeper tissues, of any amebas that may have escaped the direct action of the emetine.

PREVENTION OF SELF-INFECTION AT GYNECOLOGIC OPERATIONS

Extensive bacteriologic investigations lead W. Benthin, of Koenigsberg, to advise (*Monats.* f. *Geb.* u. *Gyn.*, Bd. 39, H. 5) that always the vaginal secretions be examined for virulent germs before undertaking upon a woman any operation involving the vagina; this, in order to forestall, by appropriate measures, any possible autoinfection of the subject.

To this end, the author suggests: whenever hemolytic streptococci are discovered in the vaginal tract, institute a course of irrigation with a 1 : 1000 solution of mercury bichloride or of one of 5 : 1000 of lactic acid. In this way, the noxous germs often can be eradicated and thus the prognosis improved; although this hardly is true in the case of carcinoma, where those cocci generally are present in the vaginal secretions.

DIPHTHERIA IMMUNE SERUM "TA"

The new serum developed by E. von Behring and Richard Hagemann, for prophylaxsi against diphtheria, consists of an adjusted mixture of toxin (T) and antitoxin (A), and has been given the distinguishing symbol "TA". The two distinguished investigators discuss this promising new weapon against that ravishing disease in a contribution to the *Berliner Klinische Wochenscrift* (1914, No. 20), saying that it effects active immunity, but must be injected at least twice within ten or fourteen days. However, before it can be introduced commercially, the serum needs to be tested out still more thoroughly.

Professor Park, of New York, in a paper read at the Atlantic City meeting of the American Medical Association, in June, gave an interesting analysis of Behring's toxin-antitoxin serum, and showed it of little special value in treating diphtheria or in immunizing those already exposed, since the immunity is not developed for some two or three weeks. It may prove of merit in producing active immunity of longer duration than can be secured with diphtheria antitoxin, but its value in that special field has not yet been developed.

TRANSPLANTATION OF HUMAN HAIRS

Not enough that enterprising cosmetic surgeons now will suture hairs into the scalp and thus reconstitute a permanent luxuriant "growth" of hair (after the manner of tooth-brushes!) upon the glossy heads of wealthy customers, but it is now announced (*Deut. Med. Woch.*, 1914, No. 19) that with the aid of certain patented instruments living eyelashes are being transplanted into bare eyelids, the "grafts" being punched out, with root and bulb, from the brows or other parts.

INFLUENCE OF CALCIUM UPON SEROUS TRANSMIGRATION

Animal-experiments conducted by R. Levy tend to show (*Deut. Med. Woch.*, 1914, No. 19) that calcium salts do not exert a very marked influence upon the progress of pleuritic exudation, at least when this process has been artificially inaugurated (by means of oil of turpentine) in rabbits. When calcium chloride was administered subcutaneously, it would at first somewhat arrest infiltration, but after that rather increased it. The same is true with similarly produced exudation into the abdominal cavity.

URIC ACID IN THE BLOOD, AND ATOPHAN

By means of Folin's improved colorimetric method, E. Steinitz has made determinations of the percentages of uric acid in the blood; and he found (*Deut. Med. Woch.*, cf. *Muench. Med. Woch.*, May 19) these results: The amount of endogenic uric acid in normal blood and under a purin-free diet is approximately 0.003 per mille; however, in genuine gout the uric acid averages 0.045 per mille, and 0.045 per mille in atypical gout.

Then Steinitz further was able to ascertain that atophan (i. e., phenylquinoline-carbonic acid) regularly would markedly diminish the uric-acid content of the blood; an effect, though, which quickly disappeared after the interruption of the drug. His deduction is that in conditions of this kind frequent

repetitions of courses with atophan will prove beneficial, while small doses will serve to correct any errors in diet.

URINARY ACIDITY IN NEPHRITIS

In a previous number of CLINICAL MEDICINE, we referred to the studies of Martin H. Fischer, of Cincinnati, who apparently has shown that the symptoms of nephritis in its various forms are due primarily to acid intoxication. The excess of acid causes swelling of the kidney cells, with a reduction of their exosmotic power and, finally, their degeneration. An interesting contribution upon the same lines is made by Walter W. Palmer, in the September 25 number of *The Boston Medical and Surgical Journal.* He has studied with exceeding care the problems of urinary acidity in its relation to nephritis. More than 3000 samples of urine, collected from between 600 and 700 individuals, have been examined carefully, and he has arrived at some very interesting conclusions.

In the case of normal persons, Doctor Palmer has learned, the acidity of the urine is about twenty-five times that of the blood. In many pathologic states, the urinary acidity is greatly increased over this, and this is especially true in nephritis. In acute and chronic nephritis, the urinary acidity in the persons examined averaged between 125 and 250 times that of the blood; in other words, the urine was five to ten times as acid, proportionately, as in normal persons.

Doctor Palmer further declares that he has never found the urine, either in pathological states or in any normal condition, more alkaline than the blood, save after the administration of an alkali or because of some other experimental interference. The quantity of acid in the urine is increased, not only in nephritis, but also in pleurisy with effusion, primary and secondary anemias, and pneumonia, as well as in conditions where betaoxybutyric acid is formed.

Doctor Palmer's observations lead to the belief that the use of an alkali is indicated in many conditions where it has not usually been administered. When the alkali is given, however, for whatever cause, the effect upon the urine should be carefully watched. The reaction of this secretion should never be pushed below that of the blood, since as a consequence not infrequently a well-marked albuminuria may result.

As already stated, in nephritis the urinary acidity is enormously increased. Especially is this true for chronic glomerular nephritis; less so in acute nephritis and in patients presenting the arteriosclerotic type of kidney. In such conditions, it is clearly deducible from Doctor Palmer's paper, the therapeutic administration of alkali in such quantity as to reduce the urinary acidity to or near that of the blood is often most desirable.

EMETINE AND VACCINE TREATMENT OF SPRUE

In a recent number of CLINICAL MEDICINE, we reported a case of sprue treated successfully with emetine hydrochloride. A very interesting paper is contributed to *The Lancet* of June 6 (p. 1605) by Leonard Rogers, who, it will be remembered by our readers, introduced the emetine treatment for dysentery.

Sprue, as the writer says, is a very unsatisfactory disease to treat in tropical climates; in the great majority of cases no improvement results from our present methods. He has recently been trying injections of emetine hydrochloride as used in amebic dysentery, together with a vaccine prepared from streptococci derived from the patient's mouth ulcers, in which they are found as an almost pure culture. He reports in detail two well-marked cases in which this treatment was employed with very marked benefit.

Rogers does not look upon emetine as a specific for sprue, as it is for dysentery; nevertheless, he considers it a very valuable remedy here, especially when employed in association with the vaccine treatment.

NUCLEIN IN PARALYSIS AGITANS

Parkinson's disease (paralysis agitans) is so resistant to treatment that any method of handling cases of this kind that promises benefit deserves study. Buia has recently quoted a series of cases of this disease in which nuclein was used. (See *Compt. Rend. d. l. Soc. d. Biol.*, 1914, p. 507.)

Buia employs a 10-percent solution of sodium nucleinate in physiologic serum. He gave it by mouth, hypodermically, and also intravenously. When taken internally, no effects were observed. Administered subcutaneously, the maximum dose was 40 centigrams (6 grains); beginning, however, with a much smaller dose and then increasing by 5 centigrams every two days, until this maximum was reached. Five patients were treated in this way, and all of them were benefited.

However, the best results were obtained when the remedy was given by the intrave-

nous route, the same solution being employed. Sometimes the immediate response was slight; in others, there was a well-marked rise of temperature, with slight chill, while in a third there was observed some diminution of tremor, a lessening of the muscular rigidity and in the rise of temperature, the latter subsiding to normal in about four hours, with some rise in the blood pressure.

In the second class of patients, there was general improvement following the immediate symptoms produced by the injection of the nuclein. Continuance of this treatment was marked by definite psychic improvement, accompanied by lessening of tremor and increase in muscular force. This benefit exhibited some degree of permanency. No untoward symptoms developed, although in some instances nausea, vomiting, and vertigo developed when more than 35 or 40 centigrams of the remedy was administered. There was occasional tachycardia, dyspnea, and headache. However, these depressing symptoms are not observed when the drug is given in moderate doses.

We should like to see the Lundvall solution, containing nuclein, arsenic and quassine, tried thoroughly in some of these cases.

FOOD TOXEMIA, OR, "AMERICAN GOUT"

That the condition of the intestinal canal plays a stellar role in the great majority of diseases, the readers of this journal are well advised. We know that most of us—certainly most of our patients—take more food than is required by the needs of the individual economy; also that our bodies suffer in varying degree from the excess of food taken into our stomachs. Dr. Robert N. Willson, who writes upon this topic in *The New York Medical Journal* (Mar. 7), adds to this duo of fundamentals a third—to wit, that few adults cleanse their gastrointestinal tracts from one end to the other at intervals frequent enough to insure freedom from food poisoning.

Doctor Willson has studied this subject, not alone upon his patients, but also upon himself and his little 5-year-old daughter, and he has found that by running up and down the scale of food quantity and variety he is able to produce—and by the same method to relieve—many clinical pictures which ordinarily are labeled with various disease-names. For instance, by deliberate experiment in his own person, he has been able to produce coryza, bronchitis, influenza, pulmonary congestion, myositis, intercostal neuralgia, lumbago, heartburn, palpitation, gouty swelling of the joints, and even apparent arthritis deformans; to say nothing of a series of symptoms indicating general toxemia, including heaviness and sleepiness, loss of initiative, general muscular and skin tenderness or swelling, besides loss of weight, almost to the point of incapacity for work.

Doctor Willson is not a vegetarian, for he declares that meat has seemed to exert very little influence for evil, provided it is consumed sparingly and but once a day. However, as soon as the individual limit is exceeded, invariably malefic consequences result. Somewhat similar symptoms frequently are produced by acid fruits, such as an orange, a lemon or an apple.

Cases such as he describes in his own person, Willson asserts, by no means are rare, and he reports the experience of several physicians who have seen cases of lumbago, various arthritides, colds, catarrhs, rheumatism, and the like, which plainly were attributable, in their respective opinions, to intestinal toxemia. He reports eleven cases, occurring in patients of various ages, in which disturbances within the intestinal canal, the result of too much or too little food, were plainly the cause of disease.

Returning to his own experience and discussing methods of securing relief, Doctor Willson writes:

"I have found that in my own case two meals a day, and only one of these a full meal, is my limit of toleration, if health and vigor, activity and interest, and, curiously, body-weight are to be maintained. As long as I adhere strictly to this regimen of nothing to eat between meals or after midday, no fruit, no highly acid vegetable, have two quarts of drinking-water daily, and exercise in the fresh air to the point of healthy tire, I remain able to rise at 6:30 o'clock and retire at 1.00 (a. m.), and enjoy every moment of work and play."

Doctor Willson also notes that when he is under special nervous tension there is an increasing tendency for the appearance of these symptoms, the partial cause of which is the inability of the alimentary canal to absorb and assimilate the food which is put into it.

Altogether, he is of the opinion that the old country doctor with his bottle of castor-oil and his knowledge of the efficiency of occasional starvation and now and then a generous sweat, struck nearer the causation and treatment of man's physical ills than does many a laboratory-worker who twists first

this and then that bacterium out of relationship with its own and its ancestors' environment. He believes that the more generous use of some vigorous laxative, repeated more than once, and aided perhaps by an epsom-salt or sodium-bicarbonate enema—also repeated together with starvation until relief, besides rest in bed if the symptoms demand that measure, is an unfailing method of treatment in those forms of disease which, for lack of a better word, he calls food toxemia, or "American gout."

LOW BLOOD PRESSURE

We hear so much about high blood pressur that it is a pleasure to find some reference in the literature to the significance and treatment of low blood pressure. This latter condition is discussed by Dr. Edward E. Cornwall in *The New York Medical Journal* for March 7 (p. 470), and he declares that variations in blood pressure are so great, both in health and in disease, that it is impossible to draw rigid lines and say with positiveness that certain systolic pressure is high and another one low. However, as a rule, for a young adult a systolic pressure of 100 mm. is low; for a person of middle age, one of 110; for an elderly person, one of 120; for a person with sclerosis of the arteries supplying a vital region, one of 140; and for advanced interstitial nephritis, one of 180 must be so accounted.

More important, however, than the degree of systolic pressure is the difference between systolic and diastolic pressure. It is essential to consider the records of the two (systolic and diastolic) together in their proper relation. Any special disturbance of the normal relation between the two has a pathologic significance, and should be understood.

Among the causes of low blood pressure, myocardial degeneration should be considered, of course. However, Cornwall believes that low blood pressure more frequently is the result of toxemia and nervous and reflex conditions than it is of degeneration of the heart. Especially interesting is his statement that intestinal toxemia may cause either a low blood pressure or high blood pressure. In either class, some relief will be secured by the adoption of a nonputrefactive diet, that is, if the blood pressure is low, correction of the diet will be followed by an increase in blood pressure; or, if it is high, appropriate change of the diet will be followed by a lower blood pressure.

Of course, low blood pressure occurs during the course of most acute infectious diseases; falling, for instance, in pneumonia. Thus, in 27 out of 30 cases of pneumonia, all of which terminated favorably, the systolic pressure fell below the pulse rate, thereby contradicting the assertion of Gibson and Hare, that when this occurs during pneumonia the prognosis is bad.

In the interpretation of blood-pressure findings, Cornwall says considerable allowance must be made for the neurotic factor in the patient as well as the personal factor in the observer, and the clinician must constantly guard against being misled by these findings.

In treating these patients, the first thing to do is, to remove the cause, if possible; this injunction being of especial value in intestinal toxemias. The essential element in the treatment, however, is rest, and if the low pressure is persistent prolonged rest in bed is imperative.

When there is cardiac insufficiency, treatment, of course, must be adjusted to the indications. Cornwall has found strychnine, strophanthin, and caffeine most generally useful. Digitalis may be prescribed when the myocardium is healthy, but it is contraindicated when there is degeneration of the heart-muscle. When there is severe falling of the diastolic pressure, owing to toxemic vasomotor dilatation, the author considers adrenalin and pituitrin quite likely to prove of value. In some cases with relatively high diastolic pressure and small pulse pressure, nitroglycerin may prove useful, but this drug is contraindicated when the diastolic pressure is low.

In those instances in which the lowered pressure is the result of hemorrhage, the circulating fluid should be augmented by the infusion of normal saline solution, while the foot-end of the bed must be raised.

SIGNIFICANCE OF INDICANURIA

In an interesting paper upon cyclic indicanuria (*N. Y. Med. Jour.*, Apr. 4, 1914, p. 669), Gustav Barr says that we can divide cases of indicanuria into three types; namely: (1) transitory, caused by some passing anatomic lesion or some temporary, possibly psychic, insufficiency of the gastrointestinal secretions; (2) constant, the result of permanent or progressive anatomic lesions of the gastrointestinal tract or of permanent insufficiency of the gastrointestinal secretions; in the latter, we can remove the indicanuria and many of the clinical symptoms by means of high colonic lavage; (3) recurrent, due to

some recurrent anatomical lesion of the gastrointestinal tract. High colonic lavage will remove this latter type of indicanuria only when the lesion is in the colon; if, however, the lesion is higher up, high colonic lavage will have no influence whatever.

Doctor Barr brings out strongly the hypothesis that in every lesion of the gastrointestinal mucosa, no matter what its cause, indicanuria is likely to occur. It may follow simple lesions or the more profound ones, such as those which occur in tuberculous peritonitis, carcinoma of some portion of the intestinal canal, stricture of the rectum, ileus, and other serious diseases. In a word, all anatomic lesions of the gastrointestinal tract are characterized by indicanuria.

THE TREATMENT OF TETANUS WITH PHENOL

Some months ago one of the readers of CLINICAL MEDICINE asked us to describe Bacelli's method of treating tetanus with carbolic acid. We find a very interesting and complete article upon this subject in the *Gazette des Hôpitaux*, December 16, 1913 (p. 2273), written by de Gery.

Bacelli made public this method of treatment in 1888, at the Congress of Italian Medicine, and since that time it has been employed by many physicians in many different countries.

The mode of using the remedy is simple, the phenol being dissolved either in water, in dilute alcohol, glycerin and water, physiological serum, or in olive-oil, plain or camphorated, and administered hypodermically. Bacelli prefers simply an aqueous solution of 2- or 3-percent strength, although much stronger solutions are employed at times, and some clinicians prefer 1-percent solutions. Gerest prefers the following oily solution: Sterilized olive-oil, 1 Cc.; camphor, Gm. 0.01; phenol, Gm. 0.10.

The quantity injected daily, as well as for each single dose varies greatly, but in 1911 Bacelli himself advised progressively increasing doses, according to the susceptibility of the patient. He suggested the use of from 1 Gram to 1½ Grams of phenol as the daily quantity, this to be divided into from six to twelve injections.

Patients suffering from tetanus exhibit a remarkable tolerance for phenol, this tolerance increasing with the severity of the attack. The total quantity of phenol given during the course of an attack of tetanus sometimes is enormous. For instance, Luciani gave an injection of 1.2 Grams a day, and a total of 40.45 Grams during the course of treatment that lasted forty-three days. Lapponi and Fiorioli have been able to introduce as high as 3 Grams a day, without inconvenience to the subject, one of these having continued this dosage for fourteen days. Children bear well comparatively large doses of phenol.

The subcutaneous route is the one most frequently employed, although several clinicians have injected the phenol intravenously, with good results. Two at least have reported making intraspinal injections, their patients having suffered on inconvenience therefrom. The pain caused by the subcutaneous injection varies, but as a rule is claimed to be slight and of short duration.

During the phenol treatment, the urine usually becomes of a blackish color as the result of phenol intoxication; but this symptom disappears quickly, without leaving after-disturbances, when the dosage is reduced or tolerance for the drug is established. De Gery says that the administration of 10 to 15 Grams of sodium sulphate daily may be employed to prevent phenol intoxication.

The effect of the treatment upon the tetanic paroxysms apparently is a most happy one. The drug seems to have a tranquilizing effect, and the patients themselves are generally favorable to this method on account of this action. According to Roerich, the tetanic phenomena are always pronounced shortly after this treatment is interrupted.

A study of the mortality statistics of the phenol treatment, as compared with the serum treatment, is most interesting. De Gery quotes the reports of different observers, who report a mortality from tetanus of from 50 to 80 percent. The mortality following the treatment with serum apparently runs from 40 to 45, up to 56.5 percent.

Now compare with those figures the results obtained with phenol. According to different observers, the deaths run from 12 to 13 percent, up to 21.47 percent. The latter figures were taken from Roerich's report of 296 cases, with 84 deaths. This is the most unfavorable series reported, but, as compared with 40 percent of deaths in the best series reported treated with the serum, the results seem very good, indeed.

Tetanus antitoxin is a remedy of great value; still, its greatest field is that of prophylaxis. It undoubtedly is the most efficient remedy we have for the prevention of lock-

jaw, and it should always be employed locally as well as subcutaneously whenever a patient receives a suspicious wound.

Probably the best method of treatment for fully established tetanus is the combination of Bacilli's phenol treatment with the local and subcutaneous use of tetanus antitoxin. The fine paper of Ashhurst and John, an abstract of which appeared in these columns some months ago, seems to support this view.

BETAIMIDAZOLYLETHYLAMIN AS A CAUSE OF URTICARIA AND ASTHMA

While experimenting with betaimidazolylethylamin in the clinic of von Noorden at Vienna, Allan Eustis discovered that the application of this substance to the skin caused a localized edema resembling urticaria. Eppinger, who has reported some experiments with this chemical, has come to the conclusion that it is responsible for the skin eruption just mentioned, that is, when this eruption is of gastrointestinal origin. Betaimidazolylethylamin is formed in the intestinal canal whenever histidin undergoes putrefaction; and histidin is one of the amino acids formed by the normal pancreatic digestion of proteins, the percentage yield of this decomposition product varying with the different proteids. Hemoglobin (from the meat) is particularly rich in this substance.

Accepting this hypothesis as explaining the etiology of urticaria, Doctor Eustis goes on to say (*N. O. Med. a. Surg. Jour.*, Apr., 1914) that a rational therapy can be outlined, based upon dietetic principles. This, for instance, is demonstrated by the experience of Salomon, who has been able to cure rebellious urticaria by having his patient abstain from all albuminous food during, say, two weeks, the diet consisting of tea, coffee, bouillon, lemon- and grape-juice, potatoes, rice, cereals, bread, and plenty of butter and sugar. The aim is, of course, to prevent putrefaction of the histidin in the intestinal canal. Salomon found that at the end of two weeks the albuminous foods could gradually be restored to the diet, while the patient still remained free from urticaria.

Of course, it is essential that the alimentary canal should be cleaned out quickly and thoroughly, and for this purpose Eustis recommends a combination of calomel, phenolphthalein, and rhubarb, to be followed by a saline laxative. After this, daily evacuations are secured by the use of liquid petrolatum, agar-agar, fig paste chopped up with senna leaves, or other similar simple laxative remedies. However, by adding coarse vegetables containing much cellulose and ordering a glass of water to be taken upon rising in the morning, he has found that intestinal toxemia usually is quickly overcome. The presence or absence of this latter condition can be determined by frequent examination of the urine for indican. Eustis also declares that cultures of bacillus bulgaricus give excellent results in cases of this character, an excellent suggestion which we commend to readers of CLINICAL MEDICINE.

EMETINE IN HEPATIC ABSCESS

Sir Dyce Duckworth, in a fine paper published in the July number of *The Practitioner*, bears testimony to the value of emetine. Speaking of tropical hepatic abscess, he says:

"Prevention being better than cure, we may now readily avert the occurrence of amebic abscess by employing the alkaloid of an effectual though very old remedy, derived from the *radix antidysenterica*, ipecacuanha, long known (for nearly four centuries) as a specific for dysentery. This remedy is emetine, the active principle of the ipecac root, and it is very deadly to amebae. Professor Rogers, I. M. S., has the credit of discovering its extreme and rapid beneficial action in amebic dysentery. It is, in fact, a specific remedy. The best salt is the hydrochloride, and this is to be given in 1-grain doses, dissolved in 2 Cc. of sterilized water twice a day. This dose is equal to one dram of the powdered ipecacuanha root, and is given hypodermically. This dosage is found to destroy all the amebae in the body in two or three days. If no benefit is found in three days, we may be sure that we are not dealing with amebic dysentery at all, for it is of no use in bacillary dysentery."

EMETINE IN DYSENTERY

Nine cases of dysentery in which the patients were treated with emetine are reported by Friedenwald and Rosenthal (*N. Y. Med. Jour.*, July 4, p. 3), seven of these being males and two females, and their ages ranging between ten years to forty-two. The drug was employed hypodermically, in doses of 1-3 to 1-2 grain two or three times daily, the injections being continued for about one week.

In every instance the drug was well tolerated. In a few cases pruritus appeared,

which extended over the entire body; but these symptoms always disappeared within a week. Usually after the third or fourth injection the number of the stools began to lessen, the blood and mucus disappearing and the stools becoming more and more solid and natural.

In not one of these nine cases could the amebæ be detected in the stool after the first day's treatment. However, argyrol injections were employed in several cases. After the first two or three injections, the rectal ulcers showed signs of healing, and they disappeared entirely after a week or ten days.

The writer continues: "Although we have in emetine a specific for the cure of amebic dysentery, it must be borne in mind that patients can not be pronounced cured until a considerable period of time has elapsed without reappearance of the symptoms, for encysted amebæ may be set free and produce a recurrence of the symptoms. It is, therefore, important that patients treated for amebic dysentery with emetine should be kept under observation for some time and at the first sign of recurrence should again be given treatment."

THE IDENTIFICATION OF THE DEAD

Until Mark Twain wrote his interesting story, "Pudd'nhead Wilson," there were few people in this country who knew very much about the Bertillon method of identifying people by their finger-prints. Today nearly everyone knows that there is such a method; although, however, it is generally believed to be principally of value in the identification of criminals. It may not be known to all our readers that every soldier who enlists in the United States Army has his finger- and thumb-prints taken, and that these not only are of value for the identification of deserters, but also, at times, to identify the dead.

A striking illustration of the value of this test appeared in the July number of *The Military Surgeon*, Major A. W. Williams, of the Medical Corps of the U. S. Army, reporting two interesting cases.

The first case was that of an unknown man who evidently had committed suicide by means of carbolic acid. No identification-check, papers, or any marks on the body or clothing could be found. However, the dead man's garments showed that doubtless he was a soldier. A finger-print was made and this, when sent to the Adjutant-General's office, proved that he was an enlisted man in the 18th Infantry. He had absented himself from his organization without leave.

The second case was still more striking. regarding it, Major Williams writes as follows:

"Remains of an unidentified soldier found in the woods near Hitchcock, Texas. An examination of the body showed that it was almost completely destroyed by maggots—no identification-tag or marks of identification to be found. The skin and appendages were practically all gone, excepting the hair, nails, and a small amount of discolored and shriveled skin on feet and hands. The adjutant-general of the Second Division, Colonel Alvord, stated that he was very anxious for me to establish identity of the soldier, if possible."

The condition of the skin, we are told, was such that it seemed almost impossible to secure a print of the skin of the finger-tips. Indeed, the epidermis had been completely shed during the prolonged exposure of the body to the elements; yet, with a magnifying glass the lines were still visible on the true skin. This, however, was in such an advanced stage of decomposition that it was not considered advisable to inject it in order to round out the sunken finger-tips and thus secure on paper a rolled impression with printer's ink. Finally, at the suggestion of Dental Surgeon Rice, a print was successfully made on a thin sheet of gutta-percha, this being warmed with the aid of a spirit-lamp and then pressed deeply into the skin, so as to make a record of the depressions therein.

The gutta-percha molds thus obtained were sent to the Adjutant-General's office in Washington, and there the fact was established that the remains were those of a private in Company I, of the 27th Infantry, who had, supposedly, deserted about December 16, 1913. He had been missing from his company for about that time; but, instead of being a deserter, the man undoubtedly had wandered into the woods and there perished. And thus this soldier's honor was vindicated.

It is likely that eventually this method of establishing identity will be much more generally employed than it is at the present time. There is no good reason why the finger-print of every citizen should not be recorded early in life. It is a fact that these lines never change, that even the finger-prints of a baby are sufficient to establish the identity of the same person, no matter how advanced in years. Should we ever have another great war, undoubtedly this method will be resorted

to to establish the identity of those "unknown dead" who heretofore have filled our great national cemeteries.

The extension of the finger-print method of identification to all citizens has advantages which need no demonstration at my hands. We may come to this sometime. It would solve many a mysterious disappearance, which now is a nine day's wonder.

STUDIES IN COFFEE MAKING

Probably the most careful studies of coffee making ever undertaken were those conducted upon the instigation of the National Coffee Roasters' Association, which appointed a committee (of which Mr. Edward Aborn, of New York, was chairman) to go into the subject thoroughly. This committee consulted not alone with the roasters and grocers, but also with domestic-science institutions, government bureaus, and many competent housewives, and checked up the results obtained with careful chemical analyses of the coffee-infusion made according to different methods.

This committee demonstrated first of all that the virtue of the coffee-infusion is directly proportional to the fineness with which the roasted berries are ground; in other words, the full strength of the brew is assured by grinding rather than by cooking. Furthermore, coffee which is finely pulverized gives a larger yield of full-strength coffee-infusion, pound for pound, than beans that are not so minutely ground. It is vitally necessary, however, that, when pulverized coffee is used, it be freshly ground just before using, since it deteriorates quickly. This necessitates the use of a coffee-mill in the home. There are a number of makes of such mills on the market that can be procured at a small cost and which do the work satisfactorily.

Another important fact brought out by the investigations of this committee was that water at the boiling temperature of 212° F. is twice as efficient in extracting color, and more so in extracting the flavor from the ground coffee-beans, than water at 150° F. Caffeine and caffetannic acid will dissolve in cold water, but the flavoring oils require a high temperature for their extraction.

Coffee was made according to four methods: (1) boiling, (2) steeping, (3) percolation, and (4) filtration.

The boiling method had the least to commend it. Thus produced, the infusion is high in caffeine and tannic acid, muddy in consistency and overrich in dissolved fibrous and bitter matters. Most of the deleterious physiological effects attributed to coffee—and this a point of highest importance to remember—are attributable to the dissolved tannins, owing to excessive boiling or to the use of coffee grounds a second time.

Steeping—that is, brewing the coffee by the addition of cold water, which is allowed to come to a boil—produces a liquor containing the least caffeine, and is, therefore, recommended when it is desirable to secure a beverage which contains a low percentage of that alkaloid. A medium degree of granulation is the most suitable for its preparation.

The objection to the percolation-method is that the water used for extracting the coffee is of a temperature not over 150° F., and generally lower than this. While percolation extracts the caffeine and the tannic acid, the beverage thus obtained has a pronounced tannic-acid taste, but it lacks the desired aromatic flavor and characteristic color. More coffee is required than by the filtration method.

Filtration consists in pouring boiling-hot water through pulverized coffee placed in a close-meshed muslin bag, the water being allowed to pass through the coffee slowly, and but once. According to W. W. Kennedy (*Am. Food Jour.*, Apr., 1914, p. 155), this method, judged by cup-tests, wth skilled and unskilled tastes, produced the purest quality of coffee-infusion, while requiring the smallest amount of coffee. It develops the aromatic flavor and brings out the distinctive characteristics of different varieties of coffee. Coffee obtained by filtration contains a low percentage of tannic acid and a medium percentage of caffeine.

The writer concludes that those who complain of any disagreeable effects from coffee would, undoubtedly, get over the trouble by having recourse to the filtration method. If they cannot without harm drink this product, they cannot tolerate any genuine coffee. However, the physiologic effect of coffee drinking can be controlled by choosing the method of brewing. By so doing, the housewife can obtain at will a low or a high caffeine or tannin percentage. On the whole, the filtration method seems to be the one generally favored as producing a coffee of the highest aroma, with least deleterious consequences.

Miscellaneous Articles

"Our Lethargic Profession"

IN THE June number of CLINICAL MEDICINE, in the first editorial, under the heading, "Our Lethargic Profession: How Can We Wake It Up," we tried to arouse the readers of this journal to the importance of understanding some of the economic movements now going on in the medical profession, and of organizing ourselves in some effective way in order to protect our own interests. We asked our readers to give this matter careful consideration and then to write us their own views, that we might evolve, through discussion, some practical plan, or plans, for meeting the situation.

Following this article we print a number of letters upon this topic. These are but a few of the many received, and they were selected because they represent several different viewpoints. Hardly two men agree as to the nature of the problems, as to which are most important, or as to the remedies to be employed for curing our evils or preventing more serious ones from following. These letters do, however, show that the medical profession is greatly interested in the "dollars-and-cents" side of medicine and that it is anxious to have "something done."

One contributor asks us to assume leadership of an economic movement. Another suggests the organization of a society of dispensing physicians. Still another is convinced that the problem of fees is the most important which confronts us. In the writer's opinion, all these matters are important, but they cannot all be dealt with successfully except by organized effort. What we really need, therefore, is to unify the profession in some way in order to make it a real fighting force in all matters which concern the doctor's income and his social and economic relations.

Of course the ideal method of getting what we want is through our state and national organizations, providing they can be persuaded to take up these problems and deal with them earnestly. Thus far our societies have been mainly interested in the professional side of our work and it is hard to convince our leaders that anything else is of importance. It was because of this indifference that there has been so much talk of starting independent societies. Personally the writer does not believe it wise at the present time to organize the dispensing physicians into a separate society, but he is willing to learn, and anxious to secure the opinions of readers of this journal.

In New York there has already been established a Federation of Medical Economic Leagues, the organ of which is *The Medical Economist*, published at 302 Broadway. We believe that this organization and its journal are both doing good work, but its activities for the present are restricted mainly to New York City, although it is establishing a few branches in other cities. If the League would extend the scope of its work so as to embrace the interests of the country physician as well as the city physician, those who dispense as well as those who prescribe, and would deal strongly with *all* economic problems with which the physician is concerned, it might prove just the organization needed. (See editorial, page 665 this issue.) We certainly urge the readers of CLINICAL MEDICINE to secure sample copies of *The Medical Economist*.

While CLINICAL MEDICINE has been doing much to prevent the passage of laws which would interfere with the doctor's right to dispense, it by no means believes that the legislative interests of the physician should begin and end here; nor is it fighting the battles of the dispensing doctor any more than it is those of the prescribing doctor. We believe that it is the right of every physician to use the method of practice which he prefers, and we certainly do not purpose making war upon the druggist, who is generally a good man and a useful ally of the physician. However, for many of our readers, dispensing legislation is a living issue. It is for this reason that it has been forced into the foreground in our pages; and it is likely to be discussed very frequently during the coming year.

We believe that attempts to secure legislation of this kind will serve the purpose of

bringing the profession together for the study of economic questions; but do not get the opinion that it is the only economic problem in which CLINICAL MEDICINE is interested. We shall do everything within our power to make the doctor's lot a happier one, his work more satisfactory to his patients, and more profitable for himself.

With this introduction we place the whole matter in the hands of our readers for discussion.

Why Not "Fend" for Ourselves

Your editorial on "Our Lethargic Profession," I think, is excellent and timely. It certainly is time we did something to get on a business basis and receive proper compensation for our services. And this would react to the benefit of the patient; for, while some physicians may consider it a sacred duty to treat suffering humanity regardless of whether they get paid or not, I am sure it would serve humanity far better if we were to insist upon proper compensation for services rendered. For, with the increased income and more spare time we could improve our knowledge and add materially to our office-equipment; thus assuring the patient better service.

Most of us are practicing medicine to earn a living for ourselves and our dependents, and statements to the contrary, it seems to me, are hypocritical. Working for the benefit of suffering humanity is an excellent thing, but it must, logically, come second; for, if we cannot earn a living, we must starve or else go into some other business, and thus, are beyond "serving humanity." It is a broad subject and has many angles to look at and from. I hold that, when we allow a patient to cheat us out of a bill for professional services and medicines, services rendered at all hours of the day and night, Sundays and holidays, at considerable sacrifice to our comfort, health, and future efficiency, we are, in a legal sense, either compounding a felony or are accessory to the crime.

The dear public takes us at our face value. When he sends a bill for services, any business man, lawyer or mechanic will insist on being paid promptly. A physician sends his bill—sometimes with an apologetic request for payment, more often not—and then waits. The public feels that if the services were worth it he would insist on payment. He does not press them, consequently he has not earned what he asks.

This month two physicians were shot to death, one here in Illinois the other down in Georgia, for refusing to wait upon sick people. Isn't that pretty tough? The public demands much, but gives little.

An ex-doctor who now runs a collection-bureau here in Chicago has what I think is a good system. He takes collections from as many doctors as he can get in a certain district. All their "dead ones" are listed in a card-index system: the amount, to whom indebted, final disposition of the account, settled in full, in part, sued, and so on. Any of his subscribers upon getting a new patient may call up the collector and obtain any available information he may have relative to that person. This gives the physician something to think of, for, if a patient owes one doctor, as a rule he is perfectly willing to owe another also. Then, if the doctor wants to work for nothing, it is his privilege. The Chicago dentists have a clearing house where all the deadbeats are listed similar to this ex-doctor's plan.

Oh, if the doctors would only pull together, cooperate. But, no, each is a law unto himself. His life becomes a monotonous round of calls. He has no time for parties, theaters, any diversion. He works day in and day out, and in the end just makes a living, and to stand-off the landlord or some of his creditors "till I get some money in." If the doctor could even for a moment see himself as the laity sees him, he would come down out of the clouds of self-conceit to the firm, hard ground.

The dear public hands us a little "schmooz" about what we are doing for suffering humanity, what a noble profession we have, and we swallow it hook, line and all with modest, downcast eyes, while the patient on the outside laughs at how soft we are.

Let us get together, devise some plan by which we can get proper compensation for our services, and which will react to the benefit of the community at large, increase the respect among the laity for our knowledge and ability, and relieve us of this criminal practice of aiding in felonies. In a legal sense, stealing more than fifteen dollars, I believe, is grand larceny. Morally speaking, is it any worse to steal outright than it is deliberately to refuse payment for just services?

R. C. MURPHY.

Chicago, Ill.

Our Lethargic Profession

Your ideas, as expressed in your editorial, "Our Lethargic Profession," are good, especially as applied to the dispensing physician.

We have no association or union of any kind that really protects, or works for, the interest of the dispensing physician, and, inasmuch as CLINICAL MEDICINE has broached the subject, I am at a loss as to where to look for a better leader or organizer of a movement of this kind than right there, in the journal office.

You have a fairly good-sized army at your service already, and I believe that, since most of them are dispensers, they would be willing to aid you to perfect our organization. From the perusal of your journal for several years, I gather that most of your subscribers and contributors are live-wires, and a bunch of livewires would be a dangerous thing to handle for some of our political friends who are always trying to force some new-fang'ed antinarcotic or antidispensing law upon us.

I believe that you and your followers are the very ones to start something, and I should willingly assist you as much as I could. I should be glad to hear, through the medium of THE CLINIC, what others think about it.

E. P. ZEUMER.

Harrison, Ohio.

[CLINICAL MEDICINE is always at the service of the profession, either to lead or follow. But first we must have a "program," and it is for this purpose, to get one, that we seek the opinions of our readers.—ED.]

One Plan for Arousing Interest

You deserve a very large vote of thanks, from those of the medical profession who are not asleep, for your ringing words in defense of the rights of dispensing physicians. But how shall we wake up

the large majority of our brethren? I have been amazed at the absolute ignorance of nine out of ten doctors with whom I have talked on the subject of laws designed to prevent self-dispensing; and most of them, when I speak about it, say that "they will never pass such laws." They think I am only borrowing trouble; but I know that if we do not get busy we shall be in a bad way before long.

We have a law in Connecticut that works unnecessary hardship on the physician, though it is not as drastic as the druggists desired. It is a nuisance, nevertheless. If we dispense a dose of morphine, cocaine, codeine or heroin, we must write a prescription and keep it on file. That is not hard for me, for I seldom use those remedies; some of my friends, however, must be kept busy writing them, or else evade the law. When are we doctors going to wake up? The laity are told by many druggists that the physicians are not competent to dispense drugs, and, yet, the bulk of what the druggists themselves dispense comes to them ready put up by manufacturing houses.

It is about time something were done. In talking with a druggist recently, he admitted that the dispensing physicians were taking away their profits and declared there should be a law to stop that kind of practice. They do not seem to realize that these days doctors prescribe much less medicine than they used to do; many of them prescribe nothing at all for many of their patients.

The doctors who are doing the work, and many of whom are barely making a living, have not the time to attend hearings on medical bills, most of them never know what is going on, while the bigguns, who have the most to say, either do not practice except in the hospitals or always write prescriptions. They do not practice in the country or down among the workers. But, like the Pharisees of old, they lay upon their brother's shoulders burdens grievous to be borne and will not touch them with one of their fingers.

The A. M. A. is working for the betterment of the profession, and dominates the state societies. What is it going to do—what has it done for the average physician who *must* dispense or go to the wall? How does it stand? If the A. M. A. were to take hold of the cudgels, in favor of dispensing physicians, do you think these laws would pass?

Can we not devise some means of waking up the profession? What would you think of a small "tract" on the matter that would embody some of the bills already passed, together with pertinent editorials, and which could be printed in quantity for a very small sum and sent to physicians by those of their friends who *are* awake?

EDWIN C. M. HALL.

New Haven, Conn.

Take a Mail Course in Pharmacy

I have read your editorial, "Our Lethargic Profession: How Can We Wake It Up," and want to make a suggestion.

For myself, because it is perhaps my nature to want to fight when my plans are opposed—and according to the letter I wrote you recently, "The Roundup of the Doctors"—I am in favor of concerted aggressive action. My suggestion is this:

Let every dispensing doctor at once take up actively the study of pharmacy—taking a mail-course in a well-recognized school, if he cannot leave home for the entire course, up to the point where he must attend in person in a school in order to obtain a legal diploma. This will enable him to pass the state-board examination and to register, after which his handling of his own drugs will be as legitimate as that of any regular pharmacist. He can write prescriptions and file them (I have done this, anyway, for years, for my own convenience) and in all respects fulfil the law. And he will be by so much the better doctor.

Whatever others may do, as for me, I have about made up my mind to take such a course.

The proposition to start a physicians' drug-house would be futile, since any such institution must be subject to any law passed.

M. F. CUPP.

Metamora, Ind.

[A course of the kind described by Doctor Cupp, an excellent one, is given by The National Institute of Pharmacy, 536 South Clark St., Chicago, Ill. —ED.]

How Can We Get Down to Business?

Referring to your article entitled "Our Lethargic Profession," I wish to say that the question of how to "waken" it is one of the most vital importance. The medical profession has long been a "joke," from the standpoint of business and business methods. Our county and state societies meet and discuss every other phase of our work, and we are making good in every line of our professional endeavor, except as "business men." Whenever the financial side of the profession is touched upon, it seems as if no one cared to commit himself.

The average physician appears to feel that the financial side of the practice of medicine is "unclean" or that it is beneath the dignity of the physician to discuss it. We work, and work hard, night and day, rain and shine, and in the vast majority of instances without any definite understanding with our "employer" as to when he is to pay for our services, if ever. And it is for this very reason that the average physician is always in debt and hard pushed for cash with which to meet his bills. I see no reason whatever why the doctor should permit any man who calls on him to run up a bill of from $5.00 to $100.00 without some definite arrangement to pay, any more than the butcher or baker or grocer.

We are organized into societies and are putting forth our best efforts in behalf of the people we serve, and we meet and give each other the benefit of our experiences, and I think that we could well and profitably add at each meeting a few of our financial experiences.

We have a few good collectors among the doctors in each county, men who are well thought of and respected by the laity; but who get pay for the work they do. Let them tell us how they do it, and then let us all try to profit by their experience. In reality, I believe that the physician who collects his bills and who is known to be "the doctor who expects his money" enjoys a greater respect from his clientele and the public generally than the "easy-going doctor" who has the reputation of answering every call made on him and never asking about his pay. The doctor who does collect for his services is enabled to meet *his* obligations promptly and thereby gains an added respect among business men.

The doctor who fails to collect for his services in the long run loses the respect of even those

for whom he has worked and failed to collect from. Even they lose respect for him, and should he ever make an effort to collect from them, nine times out of ten they not only will put him off, but, if pushed very hard, will ultimately call some other physician, pay him the cash for his services, and end up by abusing and talking about the "easymark" whom they used so long and whom they never paid. All these things, and more, I have seen repeated many times over in actual experience.

There is absolutely no sense in it. Our profession might just as well be on a sound financial basis as to be where it is. We have organizations in nearly every county in the United States and could just as well take this matter up, as we do others, and handle it in a business-like way. Decide on a just and reasonable "fee-bill," and stick to it. When a man is known to be able to pay his doctor and, yet, refuses, let the next physician he calls "cut him out" until he does settle up.

Do not let me be understood that I am not charitable and willing and anxious to look after the needs of the deserving poor; also those who have met with unavoidable reverses and who are temporarily unable to pay. It is the fellow who uses one physician just as long as he can without paying him or making any effort to do so; then, when he can no longer induce physician number 1 to go, calls physician number 2 and uses him in the same manner, then on to number 3, and so down. The fellow usually manages to find some fault with the physician when he can no longer use him and proceeds to "pay" him by "knocking" on him at every possible opportunity.

This is the class I am after. These people could all be reached and made to pay if they were promptly reported to a standing committee appointed in each county medical society to handle this class of people, and which could also have charge of fee regulation for the county.

Concerted effort and a sticking together of the members of our societies would very soon, indeed, get a line on all the "deadheads" in each county, and they could very shortly be made "Christians." They would soon learn to respect the physician, would pay him for his services and both he and the hard-worked doctor would be better off.

I fully realize that this article will bring down about my ears a veritable "hornet's nest," but I speak from actual experience and honestly believe that such measures will have to be undertaken before real and lasting "converts" can be made of the class of patients described and before the physician will be able to get just remuneration for his services from this class. However, I should be glad to hear from others on the subject.

FRANK L. VAN ALSTYNE.

Winthrop, Ark.

Why Doctors Dispense and Druggists Prescribe

As a physician who has been dispensing his own remedies ever since leaving college—seven years—I am interested in all that I read on the subject of self-dispensing. However, in all these years of reading I never have come across an article that named the real basic cause of the self-dispensing by doctors or why druggists prescribe. This fundamental cause, I hold, is *economic stress*.

Doctors, all must admit, did not deliberately choose to dispense, neither did druggists wilfully elect to prescribe; but both sets of men have been driven to do these things by force of circumstances over which neither had any control.

When doctors were comparatively few, the doctor made a good living at merely prescribing, and the idea of furnishing his own remedies never occurred to him. By and by, when doctors became numerous and competition keen, the doctor found it harder and ever harder to earn a fair living; and the more enterprising members of the profession began to furnish the remedies themselves, in order to increase their dwindling incomes.

The same thing may be said about druggists. There being too many drugstores, the druggist found it hard to make a living at filling prescriptions; so, he took to prescribing as a duck takes to water, to increase his income. In their struggle to make a living neither party is to blame. Moreover, precisely the same keen competition is operative in every other profession and trade.

As to the remedy—there is none, and none is needed. Let those druggists prescribe who desire to do so; let those doctors dispense who choose.

Let the American people decide whose services they need most, and prefer. If the doctors cannot withstand the competition, they should vacate the field to the druggists; and *vice versa*.

It may be added that the ease and cheapness with which dispensing may be done, as well as the increasing poverty among the people, are additional factors tending to promote dispensing among physicians.

I do not favor special legislation to aid either class in this conflict. If the druggists are so foolish as to believe that any amount of legislating can stop the operation of economic forces, let them go to it. They will soon learn the error of their ways. This war on the dispensing doctors will fan the flame of the conflict and will make short work of the instigators.

No amount of special legislation by the "parasite of property" can keep me from dispensing my remedies. Put that down. As long as I practice medicine on my own account I'll do as I please, so long as I please to harm no one.

When the community offers to employ me and pay me a salary, the same as it does in the case of the postmaster or teacher, I shall be willing to prescribe, if the community prefers. Meantime, no amount of coaxing, bulldozing, lying or intimidation will do the least good. My constituents have just so much money to spend on doctors and drugs. What they thus have at disposal happens to be none too much for my own requirements, and I shall divide up with no man, fight or no fight. Here goes!

M. SHADID.

Carter, Okla.

The Profession Should Fight

In the matter of attempted legislation hostile to the medical profession demanded by the druggists' associations for their own mercenary and commercial advantage, it seems obvious to me that the state medical society of each state should at once wake up. Legislative committees should be appointed without delay, and these should employ attorneys, if necessary, to oppose all legislation already enacted and to protect the public and the medical profession in their vested rights and against the tricky commercial schemes of certain druggists' associations, the members of which are responsible

for fully nine-tenths of all the drug-habitués in existence, because of the unauthorized refilling by them of prescriptions and the unqualified prescribing over the counter for their own mercenary gain. I firmly believe the American Medical Association should, in the same way, look after all legislation in Congress.

Unless something of this kind is done, and done quickly, new state and national associations of dispensing physicians will be formed to defend and preserve their ancient and vital rights which enable them to render their most prompt and efficient service to the public.

Personally, I have had better success and a much-better pleased clientele since I have dispensed my own remedies, and they get no needless or harmful dope.

E. A. SANBORN.

Somerville, Mass.

Professional Evolution

In your recent editorial, entitled, "Our Lethargic Profession," you ask, "How can we wake it up?" Why, bless your soul, the medical profession is the most wide-awake, up to date body of men on earth, of men banded together to keep the druggists from getting our scalps. Nothing of the kind suggested is at all necessary. For, by the inexorable process of evolution, the prescription-druggist is being rapidly and surely eliminated; in fact, he is all but obsolete now, and the only thing you need do to meet their frantic efforts to get the doctor's business or his scalp is merely kindly to suggest to them that they call in the undertaker in their own behalf.

Medicine, to be successful, must remain a profession. Just as soon as doctors organize for commercial purposes, they begin to degenerate. Look at the A. M. A., with its *Journal*, its Council of Pharmacy, and its propaganda for reform. It certainly does have a very close organization; but, just as certainly our A. M. A. is at least fifty years behind the times. In fact, the Council of Pharmacy is all but obsolete.

I buy my medicine from a dozen of the leading pharmaceutical manufacturers in the country. Their salesmen come to see me regularly—and a wide-awake lot they sure are. Through them, I find out what other successful therapeutist are using. We doctors have a fashion of exchanging our favorite things through these hustling fellows. Why, one can learn more practical therapeutics in this manner in six months than he could get from reading *The Journal* of the A. M. A. for a hundred years. Of course, we read *The Journal of the American Medical Association*, for it is necessary to take a glimpse into the dead past once in a while.

For the fun of the thing, just invite a dozen or so of salesmen to call on you and have them tell you all about it. I think what you hear and learn will be a surprise, and it will verify my statements.

W. A. MARNER.

Miles, Iowa.

CHYLURIA: ETIOLOGY AND PATHOLOGY

Chyluria is a disease of long duration, ten to forty-seven years (Purdy, of New York), and traumatic in origin, although the injury may have been forgotten or overlooked. This is especially true of cases occurring in this country. I also believe that those cases recorded by different writers as due to the filaria sanguinis hominis have the same etiology in foreign countries as we find in this country, viz., traumatism, if the history of each case is carefully interrogated. I find, by reviewing the literature of this disease, that in hot countries this worm is common especially in South China, where one in ten of the inhabitants harbors this nematoid worm, and, yet, they enjoy good health, and chyluria is not more common than in this country.

Let us reason. If the size of this embryo is only 1-3500 inch in diameter—just the size of a blood-corpuscle—how can they obstruct the capillary vessel? They can not, unless there was previous abnormality of the capillaries. No less authority than Purdy, of New York, says they cannot obstruct capillary circulation; but he admits that the ova, if unhatched, possibly might. This implies a doubt. The same argument holds true for the bilharzia hematobium, which is as frequently found in the blood as the filaria. Yamane, of Japan, found in a well near Nagasaki a parasite not unlike the embryo of the filaria found in the blood.

Murata collected eighty-two cases of chyluria in the Empire in ten years. If this is true, it furnishes some evidence of the parasitic nature of the disease, but it does not exclude traumatism as the etiological factor in the majority of cases.

Chyluria is found in every part of the world, while filaria sanguinis is found only in tropical or hot countries. The lymph-, or chyle-, fistula has not been found, so far as I know, although the Boston case strongly indicates one, notwithstanding the filaria were found. The record reads as follows:

"A man 57 years old, who had lived in Florida for a while. He could bring on chyluria by lying down for an hour and more readily if he lies on his back, than on his side. Can we regard this case as due to faulty assimilation as some claim?"

The natural history of the filaria has been elucidated by many authors, especially Manson and MacKenzie, who claim the parent worm lives in the distal end of the lymphatic glands—they are oviparous and their eggs are arrested in the glands and hatched there. The free embryos pass along the lymphatic vessels and enter the circulation, resting in some organ during the day, and circulate in the blood during the night, or they rest during the sleep of their host. Who can believe

this nematoid worm is not cognizant of the welfare of its host?

Manson describes four varieties: (1) filaria nocturna, which is found only in the night; (2) filaria diurna, found only in the day; (3) filaria perstans, always present in the capillaries; and also (4) the filaria Demarquay, known as the half-size. Whether this latter class is a distinct species or a half-grown form he leaves for us to judge.

Filaria diurna and perstans seem to be confined to the western part of Africa, while the nocturna is always present in the tropical countries; to which must be added a few, mostly imported, cases in the United States, as the Vickery case of Boston already referred to, the Flint case of New York, and the Henry case of Philadelphia.

Study of the blood of 60 negroes, or Bantu race, of the different tribes of the Congo State showed that the embryo of the filaria were present in the majority, thus indicating that the negro is the preferred host; while chyluria is rare. The Osler case of Montreal gave no proof of its cause, even under minute dissection. All diseases of the lymphatic system, and such diseases as cancer, typhoid fever, tumors, pneumonia, and even pregnancy (as the Francoti case of Japan), have been claimed to cause this disease; even faulty assimilation, as Rossback, of Germany, claims. The objection to the latter's claim is that no fat has ever been found in the blood.

Finally, let us hear Dr. Patrick Manson's confession. The Doctor amputated a lymph-scrotum and found part of the worm on the cut surface and the other part in the lymphatic vessel. From this circumstance, he formed the opinion that the worm lives in the distal end of the gland and the free embryos pass into the lymphatic vessels, as already stated. In the London *Medical Times*, he says that some of the phenomena may be explained in this wise:

"The parent worm being located in some lymphatic channel of a patient, instead of throwing off filaria alive and with a diameter of 1-3500 inch, aborts and throws off eggs before the embryos are fully developed. The eggs having a greater diameter, may plug lymph-vessels through which filaria would pass. The current being arrested, the vessel becomes distended behind the point of occlusion, and the result is lymph-scrotum, chyluria, etc., with all of the symptoms of inanition which attend the course and death of these cases; even the degeneration of all the organs, including the skin, are the result of starvation. This degeneration affects every tissue, even the brain, which is indicated by a growing mental weakness. This dementia and expression of senility should always direct our attention to the urine, and a test for chyle should be made.

"The urine test is simple and made in the following way: Fill a test tube two-thirds full of urine, add 1 dram of ether, and shake. A white cream will rise to the top in the tube leaving the urine clear beneath. This cream is a fat emulsion.

"Albumin is also found as globulin, peptone, alkaline albumin, but serum-albumin is found only late in the disease, or, in other words, at that stage of the disease when the epithelium of the kidneys fails *in toto* or in part; then serum-albumin may coexist with the other forms that are common to chyle.

"Fibrin in variable quantity, from a small amount to a quantity sufficient to cause spontaneous coagulation of the urine, even in the bladder, may be found. Indican frequently is found, although not every day, apparently intermittent."

In support of the etiology and pathology set forth in this article, I offer the following record of a case:

On the 20th of July, 1913, I was called to see a boy 14 years old, with the following history:

Four years ago while at school this and some other boys were rolling big snow balls down hill. He passed over one of them head foremost, striking on his abdomen, and injured himself so it was necessary to carry him home. (No doctor called.) After a few days he so far recovered as to be able to attend school.

From this time he began to waste in every tissue, even nerve-centers as well as the muscles. His mental growth checked, yes, even a retrograde state of intellect followed. Hematemesis and dysenteric discharges occurred weekly for a day or two during the first few weeks after I was called, but none of late. Complete anorexia for days, with absolutely no sense of hunger, no pain or insomnia; would sleep most of the time; ematiation became extreme; the cutis perished and desquamation was complete; nothing but skin and bones remained.

At this stage a voracious appetite, with anasarca (chyleous) developed, and after a few weeks chyleous ascites. Aspiration of three quarts and examination of the same showed it to be mostly chyle. He had subnormal temperature from the first, and therefore the desquamation was not due to fever but to the want of nutrition.

Anuria also came in for its share in the trouble, but, strange as it may seem, no suffering came from it, even though the bladder was full; and after a few days urination became free. This condition is known as spontaneous coagulation in the bladder.

The question of spontaneous coagulation is one over which many a hard battle has been fought; however, I am quite willing to accept the following: "Whenever nutrition is suspended or greatly diminished in a part or in the body as whole, products of decay are produced, and from this a ferment known as fibrine-ferment—not fibrine, but similar in action. No blood was ever found in the urine, nor tube casts or embryos of the filaria sanguinis."

Urine always was alkaline; specific gravity 1012 usually; chlorides, 12 percent per volume; phosphates very low, 5 percent per volume; urea, normal, 10 grains per ounce; indican, in great excess at times; chyle, always found in large quantity; albumin, a trace, or, in other words, 20 grains to the liter, by Esbach's method.

The keeping qualities were greatly enhanced, keeping for months without decomposing. This fact has been noticed by other observers. Oxidation, however, causes the milk-like appearance to change to a deep-blue whenever indoxyl potassium sulphate is greatly in excess. The alkaline urine is due to the fact that the content of the small intestines and chyle is strongly alkaline; whenever this passes directly into urinary system the result is alkaline urine.

Examination of the blood by the use of hematocrit gave 40 volume percent, or 2,000,000 red blood-corpuscles to the Cc. of blood; also 40 volume percent of white, 20 volume percent of liquor sanguinis, and hemoglobin, 20 percent by von Fleisehl's hemometer.

The microscopical examination showed the blood-cells contracted and serrated, somewhat like postmortem blood-cells, wanting, however, the true raspberry appearance. No embryos were found. The patient still is iving, but not likely to recover.

C. C. PERRY.

West Rutland, Vt.

RENAL COLIC—A PERSONAL EXPERIENCE

I have read with much interest Doctor McMechan's article in an old CLINIC on "Impacted Renal Calculi." I was the more particularly interested in the article, from the fact that once (in 1886) I had about six months' personal experience in passing two renal calculi, several weeks apart.

At that time we knew nothing of the value of the hyoscine-morphine combination, and I relied on morphine hypodermically to relieve, or rather to ameliorate, the excruciating pain. I drank Buffalo lithia water by the gallon, without apparent benefit, and finally fell back on flaxseed-tea to flush the urinary tract, and morphine hypodermically to afford some relief.

No one who has not had kidney colic knows what pain is. The passage of the calculi from the kidney (the right) to the bladder was a campaign long to be remembered by your humble servant; and their passage from the bladder through the urethra was far from being a holiday picnic. One of the calculi became lodged in the urethra for about twenty-four hours, and I drank flaxseed-tea, I dare not say how many pints, in order to enable me to force the stone through; which finally I accomplished by compressing the end of the penis and distending the urethra, and by straining.

I do not believe that lithiated drinks will dissolve the calculi in the kidney or during their transit, and that the most effective relief will be best afforded by flushing the urinary tract with copious emollient and mucilaginous draughts.

GEO. D. STANTON.

Stonington, Conn.

[Has anyone any suggestions to offer?—ED.]

IPECAC AND SOLANUM

In reading the last few numbers of CLINICAL MEDICINE I have noticed quite a number of articles about emetine in dysentery, all of which have been interesting, although I am sure you will find, upon perusal of eclectic literature, that ipecac has been the sheet-anchor of this school in the treatment of dysentery for something like twenty or twenty-five years. Their literature speaks of ipecac in a general way as follows:

"This is especially the remedy for acute diseases of the mucous membrane of the intestinal canal, whether diarrhea or dysentery. It is also our excellent remedy for nausea when the tongue is elongated and pointed."

I use it as follows in acute dysentery or diarrhea: aconite and ipecac (Lloyd's), 10 drops; water, 4 ounces. Take one teaspoonful every hour.

I have used it for fourteen years and have never lost a case up to the present time. Of course, other indicated remedies are used as required, but ipecac forms the foundation of the treatment. I do not remember having used any bismuth or any of the opiates in the treatment of dysentery.

Then, again, in the last journal you speak of solanine in whooping-cough. In my hands it has everything else "beat a block." It lessens the spasm and undoubtedly shortens the course of the disease.

I have been using Lloyd's specific medicine in 5- and 10-drop doses for five or six years, and it is rare that I use anything else for this condition.

You might ask the "brethren" to try it in all spasmodic conditions, especially in spasmodic dysmenorrhea. In the last-named condition it can be used in half-dram doses every two or three hours until effect.

Personally I have never noticed any toxic action manifest itself, and I have given quite large doses, even to small children. I have given 5 drops of Lloyd's specific every two hours to a child 8 months old, with only the best results. I sometimes combine it with belladonna, but I believe it works as well alone as when combined with other drugs.

I have never used many of the active-principle preparations, but have always stayed pretty close to the specific medicines, as I have always obtained the desired results from them. Still, I am going to give the alkaloids a trial.

E. P. ZEUMER.

Harrison, Ohio.

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[Ipecac has been used as a remedy for dysentery for many years, and till recently it has been the best thing available for the tropical form of the disease. Unfortunately it has not been generally used on account of the awful, deathly nausea which it produces when given in the enormous dosage necessary to make it effective. From 30 to 60 grains of the powdered root were required, and frequently the patient found it impossible to retain this dose. Rogers discovered that emetine was more effective than ipecac, that it was much more certain, that it could easily be given hypodermatically, and that it nearly always *cured* the disease—often within a week in cases of months and even years standing. Since we have an effective, well-tolerated and easily administered alkaloid it is just as foolish to use powdered ipecac in tretaing dysentery as it is to use powdered cinchona bark in treating malaria. Don't you think so?

We are glad to learn of Doctor Zeumer's favorable experience with solanum. However, we are sure that when he has become better acquainted with the alkaloid, solanine, he will use the latter by preference. We hope the brethren will follow up his suggestion as to its value in spasmodic conditions, especially dysmenorrhea. Lloyd's specific medicines are indeed good. We are glad to add a word of praise for these fine preparations.—ED.]

INANITION FEVER

I was greatly interested in Dr. M. Shoyer's article on the "Inanition Fever of the Newborn," page 531 of the June number of CLINICAL MEDICINE. I discovered the same trouble some ten years ago, but, never having seen or heard a word about the conditions, I did not have a name for it. However, I found that hot water and 10 drops of sweet cream to the ounce would quickly cure the trouble; and I have been using that treatment ever since then in all such cases with perfect success.

The profession surely is under obligations to Doctor Shoyer for giving us the temperature and other data. I had never taken the temperature, as I considered the trouble simply caused by hunger, because the mother's milk had not come.

THOMAS W. MUSGROVE.

Sultan, Wash.

INANITION FEVER — ANOTHER REPORT

First of all, I read CLINICAL MEDICINE, and I like it very much. In looking over the June number, I was attracted by the article written by Dr. M. Shoyer upon "Inanition." I believe that I have also found the same thing he speaks of in children that are much older, say, three months or more. I have found their temperature below normal, as low as 97° F. due, I presume, to weakness. I have tried the boiled water and normal salt solution, but believe that a little barley-water added to it does some good. Giving just a little nux vomica along with it I think does good also. Yet, I have lost my share from this cause.

The question of diet is important in treating these little sufferers; still, in a country practice, where it is not possible to look after the preparation of food, it is almost dangerous to let the child have anything at all.

Have any of you ever tried treating the mother?

R. B. DOUGLAS.

Shelburn, Ind.

THIS BABY WAS "COOKED"

As to Dr. Mayer Shoyer's cases of inanition fever reported in the June CLINIC—were they born during a hot-weather spell and "cooked," as illustrated by the following?

On June 13, 1913, I delivered a multipara of a normal male child of about 7 pounds' weight. Forty-eight hours after, I was called to see the child. The mother told me the baby had cried all the night previous and so far that day; also that it was broken out all over with "eczema." While listening to her report I looked for and found a fan and then went to the window to let in a little air, remarking on the excessive heat—this being at 104 degrees in the room.

The little child lay fretting on the bed back of the mother, in a corner of the room. It was dressed for Christmas weather and covered with a blanket in regulation fashion, "so that the light couldn't strike his eyes." Taking it up, I found the child covered with papules, the forehead just matted with them. Its clothes were moist; the rectal temperature was 103.5° F. Besides the regulation baby outfit of underwear, band, and underskirt, the poor thing was wearing a starched gingham dress three feet long!

I insisted that the child be undressed and bathed, and ordered that it be given plenty of water, whether it was nursing or not. (It had been urinating very little.) A little zinc-oxide ointment was rubbed on its face and talcum powder dusted over the body. I had considerable work persuading the mother (whose eight children still survived in spite of her "care") to permit the child to lie uncovered through the hot day, dressed only in its diaper and shirt. The bath soon stopped the fretting, and the eruption promptly faded, and the child got through the hot weather in good shape. I may add that the child's temperature was as stated (103.5° F.), because for days I was obliged to cool the thermometer in a glass of water, in order to shake it below 98° F.

SAMUEL ADAMS.

Niles, Kan.

INANITION FEVER

After reading Dr. M. Shoyer's article on "Inanition Fever" I feel like making a report on three similar cases of mine; adding, that I searched all my books and journals, but failed to find anything satisfactory regarding the same.

Case No. 1. Mother well; strong and healthy. It was her first child; a little fellow, of average weight, but strong. About twenty-four hours after delivery I called to see them and found the baby with a temperature of 101 degrees. I put him on cool boiled soft water for twenty-four hours, then ordered added one teaspoonful of the mother's milk to the course of water. The child was well in about four days and then was put on percentage feeding; later, about the fourth month, being given buttermilk. He is now a big, fat prize-winner.

Case No. 2. About thirty-six hours after the birth of the child I was called in. The baby was not doing well, had a temperature of 100° F., and this rose to 102 degrees the second day. It was put on the water and milk dilutions, and in about five days it was well. The mother was strong and healthy. This was the second child, and I put it on the breast and had no more trouble with it.

Case No. 3. This ended fatally. The family lived some distance in the country, so, I gave instructions for the care of mother and child and directed that if anything happened to let me know immediately. In about five days they called for me, but not being at home, they called my doctor-friend. When the latter examined the baby he found its temperature 107° F. He was positive of this temperature, for he took it three times; while later we tested his thermometer together and found it correct. Doctor Smith saw the boy early in the morning, but when I arrived later it was dead, of course. This mother was not a strong, healthy woman, but the baby was a 10-pound boy and a fine-looking fellow.

In each of these three cases about the same symptoms were observed. There was restlessness, fever, face flushed, lips parched and cracked, body hot, pulse weak and rapid, and the baby emitted a feeble whine almost continuously. I regret that I can not present a better history and clinical record, especially of the third case, but I am positive that in the latter it was not later than the sixth day when the condition appeared. I have seen two or three other similar cases, but am not positive that they were of the condition described. These patients were all in the country and, needless to say, I had a hard time keeping the old-women's remedies out; still, I had my way. I could find no signs of bacteria caus-

ing this condition, not even in the third case, in which the temperature rose so high.

I. R. FOWLER.

Louisville, Ky.

[These four communications are exceedingly interesting and instructive, since they deal with a subject upon which there is practically no literature. Yet it appears that the general practitioner is encountering the obscure condition of which Doctor Shoyer originally made mention in all parts of the country—for we may assume that these four reports, from east and west and south, are fairly representative of what is happening to others who do not find time or opportunity to write about their experiences.

Doctor Adams' case does not seem to belong to the group, and is of value to the discussion chiefly as pointing the difference between genuine instances of the sort that Doctor Shoyer reports and pseudo cases which may complicate the diagnosis. In Dr. Adams' case there was unquestionably a frank infection, probably of the intestinal tract.

The cases reported by Doctor Fowler bear dery suggestive ear-marks of an underlying vyscrasia of some kind—syphilis, or tuberculosis, or some other inherited infection. Especially is this true of the second case which proved fatal. One can hardly believe that an otherwise sound and healthy infant could run such a severe, almost violent, clinical course, and die within so short a time, sheerly from inanition.

Indeed, to be frank, the question still raises itself very seriously in our own mind whether any of these cases, including Doctor Shoyer's, can be regarded as due to inanition only. It is difficult to credit such marked clinical effects in an infant to such a cause. It would seem to us much more reasonable to postulate an underlying obscure infection, of which the inanition is but a secondary phase.

We have wondered whether some of these disturbances of metabolism and elevations of temperature in the newborn might not be the result of the introduction of bacteria into the gastrointestinal tract which we know occurs during the first forty-eight hours of infantile life. The child is born with an absolutely sterile alimentary canal; but in twenty-four to forty-eight hours it is literally flooded with a large variety of flora, which it is reasonable to believe must bring about a considerable reaction. It is quite possible that in a perfectly normal infant this reaction passes unnoticed, but that in other children it makes itself manifest in a rise of temperature and general metabolic disturbance, much as an inoculation does in an adult.

One thing is certain, however. The subject is a most interesting one, and worthy of study and investigation. And the only effective way of investigating it is through the observation and reports of the men in the field. We trust that our readers will not allow the matter to drop, but that we may hear from many others who have had experience. We also suggest that when such cases are encountered in future, a careful record of all the data be kept, with a view to a solution of the obscure problem.—ED.]

AMENDMENT TO DR. P. T. GEYERMAN'S ARTICLE

Through an editorial oversight, the address of Dr. P. T. Geyerman, whose article upon "Pyuria" was published in the July number of CLINICAL MEDICINE, was omitted from the caption of the article. Doctor Geyerman resides at Hot Springs, South Dakota. Please look this matter up in your July issue and fill in the correction with pen and ink.

DR. A. ROSE PREFERS AETIOLOGY TO ETIOLOGY

Dr. A. Rose, of New York City, calls attention to the fact that in spite of our promise to spell standard scientific words in his little paper, published in the July issue, exactly as written, our typographer made the mistake of making him say etiology instead of aetiology. Our apologies to Doctor Rose. Although we cannot agree with him on orthography, we do try to give him a chance—always.

PLANS FOR A DOCTOR'S BUNGALOW

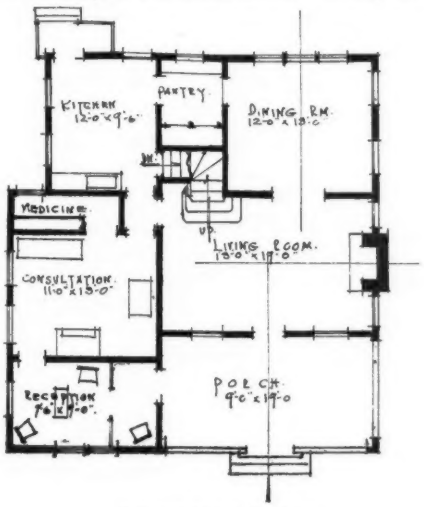
There seems to be a demand for a small house, or bungalow, which can be built anywhere in the country and which is large enough to provide the physician with an office in his own home. Mr. Arthur H. Busch, who has from time to time submitted house plans which have been published in this journal, this month sends us a sketch of a cottage which we believe will appeal to hundreds of physicians who are contemplating building. It is beautiful, can be built upon almost any site, in the country or in the city,

Sketch of a model bungalow for a doctor

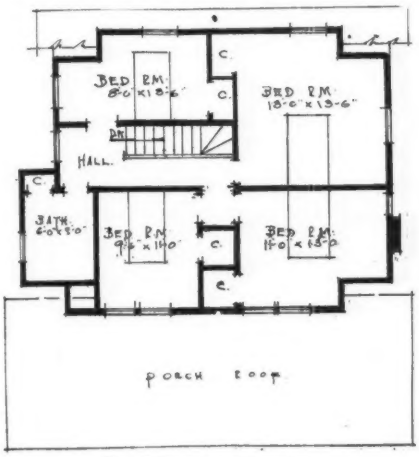
is not expensive, and is admirably adapted to the physician's needs.

Examine the floor space carefully. It will be found that the doctor's reception room opens off the porch and is connected with a consultation room of ample size. Opening from this is a medicine closet, which can with a little rearrangement be converted into a laboratory if so desired. The arrangement of the living rooms will appeal to the doctor's wife.

We are convinced that a great many of the readers of CLINICAL MEDICINE will want to investigate this house further. It may not please them in every detail, and minor changes may be required. Therefore we urge every reader of our journal who is considering the possibility of building a home to write at once to Mr. Arthur H. Busch, 1306 Gregory Ave., Wilmette, Ill. Whether you like this plan, or want something different, we hope that you will communicate with him, provided you have any thought of building.



First floor plans of bungalow



Second floor plans of bungalow

MEETING OF THE AMERICAN SPONDYLOTHERAPEUTIC ASSOCIATION

The third annual convention of the American Association for the Study of Spondylotherapy will be held in Chicago from Septem-

ber 21 to 24 with headquarters at the Hotel LaSalle. For particulars and programs the secretary of the organization, Dr. S. E. Bond, 207 N. 9th St., Richmond, Indiana, should be addressed.

The rapid acceptance by the best among medical men of spondylotherapy as a highly valuable branch of physical therapeutics is one of the splendid results achieved by the Association. The constantly increasing number of medical men in attendance at these conventions, embracing followers of all schools and members of the leading medical societies and colleges of the United States, is significant of the future status of a united medicine.

The coming convention, it may be stated, will fairly bristle with scientific, result-getting work for everyday practitioners. Prominent among the lectures to be delivered will be three by Dr. Albert Abrams, and these will cover the following subjects: (1) New data concerning Abrams' electronic reactions in diagnosis of disease and the making of records (pathograms). (2) New data concerning human energy, with instrumental demonstrations by the psychophanometer. (3) The employment of human energy in the treatment of disease (electronotherapy).

Besides the foregoing, Dr. E. N. Perdue, of Kansas City, will speak upon some of the newest advances in cancer research in the way of spondylotherapeutic diagnosis. Further, the latest mode of fulguration, by well-known eastern specialists, and some possibilities of the use of radium are among the subjects to be discussed. We cordially invite the medical profession to this convention "that's different."

S. E. Bond.

Richmond, Ind.

A TRIBUTE TO DOCTOR LOVE

I notice some kindly tributes to the memory of my friend, the late Dr. I. N. Love. And they are in their appropriate place, "Just Among Friends." I knew him well enough to know that that is the right place for all that may be said of him whose friendly face we shall see no more.

I. N. Love! At mention of his name a thousand pleasant recollections start into action, I had almost said into being, so entertaining and graphic the picture that rises before me. The sheeted ghosts of the past materialize and the cerements of the dead in Memory's grave are thrown off, and his real presence stands before me, transfigured and with outstretched hand. I seem to hear his voice and see the changing expression of his face as thought after thought sweeps through his mind, so strong was our mutual friendship when he walked the earth.

I remember his long visit with wife and family in my far-western home, our delightful rambles over the hills, the lingerings by the waterfalls and tuneful streams, our strolls with the birds and other wild animal life in the canyons of the mountains; and all the varying scenes in harmony with ourselves.

Love was an all around man. He loved the wisdom hidden in the books of his library by great minds of the misty past, and nothing in the present seemed to escape his observation. The common things of life that others might pass by without seeing would reveal to the eye of Doctor Love some hidden beauty of interest that would challenge his attention and deep appreciation. The cloud that floated overhead on invisible wings—he understood its purpose, that it was to fulfil some omnipotent law. The bird-song, the swiftly changing colors of the opalescent sunset, all, all were in harmonic concord with his great soul. Aye, had he lived longer into the ripening years of wisdom, he would have left a name and reputation not soon forgotten.

Yes, Love had faults, but they only emphasized his great virtues. His faults served to bring into bolder relief that other splendid side of his nature, as the storms of winter bring out the splendors of summer. He hated cant of every sort and in his heart of hearts he despised the hypocrite. He hated the strong that made a prey of the weak, he hated the self-righteous who was deaf to the appeals of the unfortunate.

And, so, knowing Doctor Love and appreciating his friendship that will always be a pleasant recollection, I come to lay this poor wreath on memory's casket where sleeps my friend unmindful of the unrest and hysterical throes that now convulse the social world, but will disturb his rest no more.

A. S. Condon.

Ogden, Utah.

JAMAICA, WEST INDIES

> Breathes there a man with soul so dead
> Who never to himself hath said,
> "This is my own, my native land?"

As a constant reader of Clinical Medicine, I can bear out numerous facts, veracities from month to month printed on its pages, yet, may have had my doubts of some of the varied experiences of some of its nu-

merous contributors. Now I know absolutely of one Munchausen story published in its columns. This bit of romancing is that portion of Dr. C. E. Witham's article on "My 6000 Mile Ocean Trip" (July, p. 615), referring to the Island of Jamaica in the West Indies.

That island being my native land and my home for the first twenty-three years of my life, it makes me rise to the occasion and to say that Brother Witham must have got his facts from some "dago" down in Lawrence, Kansas, as he surely could not have written thus had he really visited the beautiful island of Jamaica and met many of its numerous charming people. I must contradict his statements *seriatim*.

The sunken city of Port Royal is not to be seen and has not been seen by any but the legend-writers; and the good doctor even believes such rot as "his ship being tied to a buoy which is anchored to a church-steeple."

The natives, he tells us, cry out, "Stop Sam!" Surely, he must mean "Stop, sah!"—just as they say "sah" for sir in Alabama.

"The woman wants a Spanish quarter for the 25-cent American piece." He must mean an English shilling, for the English is the only currency the natives respect, although they will accept American money.

"In Jamaica it is a rare thing to find a person able to tell who his father is." This is a wholly imaginary assertion; but, then, he covers it by saying that it is the "statement of a missionary." The percentage of illegitimacy in Jamaica unfortunately is high, but only among the black native descendants of former slaves; our white population there is far more moral than the average white population in America.

Reminds me of the story the people here tell of the time when the old hotel in this town in South Dakota burned down they found forty-eight dead babies in the privy vault and under the floor. Of course, these presumably were not illegitimate children, according to Doctor Witham's conception, and they could each have told who was its father. I have been practicing in South Dakota for years and know its state of morals fairly well.

Doctors more than any other class should be careful in print not to give unreliable data, and Doctor Witham is given a hearty invitation to go down to Jamaica once again some day and see what a civilized and modern country it is.

My excuse for writing is, that I wish to correct the false impressions the readers of CLINICAL MEDICINE may get of that island, which is doing so much to attract tourists and to earn the reputation of the "most beautiful winter resort in the Caribbean."

R. HESLOP-PAYNE.

Tripp, S. D.

INTRAVENOUS IRON MEDICATION

In compliance with your request for reports of experiences with the intravenous administration of iron, I submit the following:

I have been using this mode of giving iron for about five months, and in that time have treated 14 patients, and given a total of about 50 injections. I am employing a compound solution, containing in each dose of 5 Cc., approximately, as follows: calcium creosote, 3 grs.; iron phosphate, 1 1-2 grs.; magnesium glycerophosphate, 1-16 gr.; sodium chloride, 1-3 gr.; sodium salicylate, 10-16 gr. Mercury may be added either as the bichloride, albuminate or succinate, using 1-40 grain per dose; also arsenic in the form of sodium cacodylate, 2 to 4 grains, at the time of injection, if indicated.

Indications: Rundown conditions of the system generally; acid conditions of the blood, such as nephritis, rheumatism, pneumonia, tuberculosis in any form, anemia; gastric or duodenal ulcer; leg ulcers. In this last condition, the foregoing compound solution may also be applied locally, with great advantage.

The process of administration is very simple. Engorge the veins of the fore-arm or lower leg by means of a tourniquet applied above the elbow or the ankle, respectively. Sometimes a hot bath to the extremity is advisable, to distend the veins. Sterilize the seat of injection by means of tincture of iodine; or with a mixture consisting of camphor, 60 percent; phenol, 30 percent; alcohol, 10 percent; or with any other efficient antiseptic. Use a 10-Cc. syringe, preferably all glass, sterilizing it thoroughly.

Having drawn up 5 Cc. of the solution (one may use as much as 10 Cc.), pierce the vein chosen for the purpose, loosen the tourniquet, and begin to inject slowly, taking from three to five minutes to inject the entire amount. If in doubt whether or not you are in the vein, withdraw the piston of the syringe a little, when blood should be seen to enter the syringe. After withdrawing the needle, cover the puncture with a droplet of collodion. When this is dry, send your patient on his way rejoicing.

The injections are to be repeated every day in pneumonia, and every three or four days, usually, in other conditions. The number of injections will vary from 3 to 20, the average being about 6.

In the beginning, I used a solution which I bought for $3.00, later, for $2.00 an ounce. But I have learned to make a better solution myself for very much less money, so that I can afford to use it even in the case of poor and charity patients.

My results have been very gratifying. First, no unpleasant reaction, such as chill or the like occur. Next, the patient's hemoglobin rises about 5 percent and the red cells increase in number with each injection. The tired feeling improves very rapidly and is replaced by a sense of wellbeing; sleeplessness is replaced by sound and refreshing sleep (I speak somewhat from personal experience, as I myself have taken 8 injections for duodenal ulcer); weight increases. In the obese, it is said to diminish the surplus fat, but about this I cannot testify.

I trust that others may take up this method of intravenous medication and report results.

A. F. BURKARD.

Omaha, Nebr.

TREATMENT OF APPENDICITIS

Ten or twelve years ago I was strongly opposed to operation for appendicitis, except as a last resort. The death rate after operation was high. It was some years before I met a case of appendicitis in my own practice. This was partly because I had learned the value of the cleaning-out process and cured many patients who otherwise would have gone to the surgeon as victims of the operative craze that set in ten years ago.

Later I found a considerable number of patients who, in addition to other abdominal disorders, had genuine chronic appendicitis. These I treated hopefully and persistently by resort to cleaning out, antiseptics, massage, vibrations, electricity, exercise, diet, tonics, and suggestion, but without securing a single cure. I have cured in dozens of cases that in the early days of this century were called, or would have been called, appendicitis by most physicians, but which lacked essential symptoms.

However, I have definitely given up all attempts to cure appendicitis. Some patients get well, with or without treatment. Perhaps nine out of ten will recover from a first attack. But most of those nine will suffer from chronic nervous or digestive disturbance and later attacks of appendiceal pain. And it is not possible in the present condition of medical science to say which of the ten will not recover without resort to surgery.

Early surgical intervention—given a reasonable amount of skill—involves practically no danger beyond that of the anesthetic, say, one death in four thousand. The patient is on his feet again in a week or less time, and the danger that would otherwise threaten him for the rest of his life has vanished. On the question of safety, there is no comparison between the two plans of treatment, the surgical and the expectant. The time of recovery is also in favor of surgery. The only disadvantage, from the patient's point of view, is that higher fees for surgery are customary.

Preventive measures certainly should receive full attention. Appendicitis is like most of our troubles in this, that it usually originates in constipation or intestinal stasis of some sort. In fact, if it were not for the results of alimentary autointoxication, nine-tenths of the members of our profession might give their attention to other pursuits.

T. PROCTOR HALL.

Vancouver, Canada.

WHAT'S THE USE?

Under the above caption (CLINICAL MEDICINE for March, p. 206) you say: "Brahmin and Buddhist came to the conclusion that nothing was any use; that world and life in it were irretrievably bad, and the best thing that could happen to anybody was, to get out of it. Yes, Gautama who, dying, gave as his parting message to man the words that cannot die, 'Be kind to all that lives,' he also found no heaven promising so much as nirvana —nothingness."

I had hoped that someome better versed in the eastern religions would discuss this subject. I feel that justice to yourself, in maintaining your well-earned reputation for fair dealing and unbiased judgment, as well as to your large "family" of intelligent readers, demands that you be not hasty in your judgment of one of the world's greatest teachers—Guatama Buddha, who meant as much to the people of his time as the Christ means to us. And, certainly, his teachings were beautiful:

"Cease to do evil."

"Learn to do well."

"Cleanse your own heart."

Nor would his precepts hurt the twentieth generation to follow:

1. "Refrain from destruction of life."
2. "Refrain from taking that which is not thine."
3. "Refrain from unlawful intercourse."
4. "Refrain from falsehood."
5. "Refrain from using intoxicating liquors or stupefying drugs."

But, I wish especially to call your attention to the modern translation of the much misunderstood word nirvana. This term should convey the idea, not of nothingness, but of "the highest spiritual attainment." I think the mistaken translation comes from the fact that it is regarded as the annihilation of the *personality* or *lower* self by its union with the *individuality* or *higher* self, a life of absolute *selflessness*, as opposed to one of *selfishness*, is "nirvana"—the goal set for human evolution during this dispensation.

One need not renounce his own religious convictions in order to recognize the truth and beauty in another; and you will find the beautiful poem of Sir Edwin Arnold, "The Light of Asia," quite entertaining and highly educational.

L. J. COBERLY.

Oakesdale, Wash.

MORE ABOUT HOT-WEATHER TROUBLES

"Summer-complaint" is with us. The unfortunate sufferers diagnose it thus for us with their weary resigned voice. The following treatment of simple diarrheas has been effective in my hands:

A cool sponge-bath; a copious enema, either saline or soap-water; and the internal administration of arsenic trioxide, 1-100 grain, three times for one day. The patient is advised to rest in the recumbent position as much as possible during the day. Diet to consist of dry toast, custard, soft-boiled eggs, junket, beef-extract, buttermilk, and a little tea. I rarely find it necessary to resort to opiates to dope the bowels into rest.

Another self-diagnosed complaint is "heat-tiredness." Ever hear of it? Not a disease, but a very common complaint in this weather. When the temperature is high and there is great humidity, we are all liable to experience sensible perspiration, and we all know how uncomfortable that is. My only suggestion of treatment is based on that which we found as boys. Then we hustled to the river or the lake and—no, not bathed, just swam. Now I advise salt-water sponge-baths, used frequently. Natural salt-water is best, if that can be obtained, but a good substitute can be made.

W. R. YOUNG.

Shelbyville, Mich.

SKIN ERUPTION AND BLOOD POISONING

On page 382 of the May number of this journal you ask, "What would be *your* treatment for the case described on page 379?"

As for myself, I should depend largely upon echinacea (specific tincture), to rectify the blood poison. Quinine, if there were marked periodicity. The tincture of chloride of iron, if there were dark discoloration of the mucous membranes, which nearly always is present in these cases. My dressing of the wound would be as follows:

If covered with a dirty-gray pus, cleanse it with hydrogen-dioxide solution, dress with tincture of iron, cover with gauze bandages or sterile cloths. If badly swollen and dry, apply alcohol locally and cover with absorbent cotton. Keep the latter wet with the alcohol, tincture of myrrh or glycothymoline. Either will answer. Here (in the swamp country), quinine in liberal doses is always curative. Keep the bowels open.

W. P. HOWLE.

Charleston, Mo.

APIS MELLIFICA

I have just finished reading the article in the June issue of CLINICAL MEDICINE, from the pen of Dr. Hoff, in which the latter calls attention to a "good old negro remedy," concocted from honey-bees, and I trust I may be pardoned for saying that my feelings on reading the article referred to were somewhat tinged with amusement.

To those of "us regulars" that have confessed the utter unreliability of the galenical preparations and the complete lack of definite knowledge regarding drug action contained in the United States Pharmacopeia and other fetishes of the regular establishment, and have turned to the homeopathic and eclectic schools for a comprehensive, scientific knowledge of our remedies, the therapeutics of apis mellifica is a matter of ancient history, inasmuch as this remedy has been known and used by the exponents of both of the above-referred-to schools ever since their earliest record.

I append herewith a brief study of apis, referring those who wish a more exhaustive treatise to the following authors: "Materia Medica and Therapeutics," Ellingwood; "Specific Diagnosis and Medication," Fyfe; "American Dispensatory," Felter and Lloyd; "Syllabus of Materia Medica and Therapeutics," Locke; "Reference Book to Specific Medication," Niederkorn; "Materia Medica and Clinical Therapeutics," Petersen; "Specific Medication and Specific Medicines," also "The American Eclectic Materia Medica and Therapeutics," Scudder.

Homeopathic studies: "Key Notes of Leading Remedies," Allen; "Materia Medica," Blackwood; "Materia Medica," Kent; also such writers as Anschutz, Bartlett, Baenninghausen, Bradford, Bray, Clarice, Dewey, Hale, Hering, etc., *ad infinitum*.

The common name of apis mellifica is honey-bee. The remedy is prepared from the entire live bee, in contradistinction to apis virus, which is made from the poison-sac and sting.

Preparations: Mother tincture and dilutions. Dose of the tincture from 1-2 to 5 drops.

Physiological action: Apis mellifica is a diuretic, diaphoretic, and alterative. It has a stimulating action on the kidneys, and causes irritation of the tractus urinarius. The ovaries and testicles (left especially) undergo mild inflammation, and there is tendency to dropsy. The entire cellular tissue is eczematous, which is attended with stinging, burning pains. The cutaneous surface shows urticarious inflammation, the areola being red and white. Vesicles may appear, the bone being bluish-red and hard. There are inflammations and dropsical effusions of the serous surfaces, while the mucous membranes exhibit catarrhal states, with an edematous tendency.

Therapeutics (homeopathic): Apis mellifica is the indicated remedy in cases that are characterized by an edematous swelling of any part, such swelling being attended with burning, stinging pains. The patient may complain of a bruised sensation. Serous effusions that are of inflammatory origin also call for apis mellifica.

The drug should be closely studied in cases of mental derangement. These patients are, as a rule, fidgety, silly, jealous, awkward, constantly dropping articles. It is of great service in meningitis, accompanied by effusion. The child is stupid, gives sudden shrill cries. There may be, to all appearances, a monolateral paralysis of the facial muscles, while on the opposite side there are convulsive twitchings of the face. Scanty urine, with no thirst, asthenopia, chemosis, irrespective of the cause, if attended with stinging, burning pains in the eye and hot, scalding tears. The lids feel stiff; they are edematous and show puffiness and baggy swelling underneath.

Edema accompanying laryngitis, pharyngitis or diphtheria, as well as scarlatinal inflammations yield to apis. Given any of the above states, accompanied by an intense redness of the throat, dryness, glazed appearance, stinging, burning pains upon swallowing, and apis mellifica meets all requirements.

Acute nephritis, with anuria, vesical tenesmus, with high-colored urine and pains in the bladder.

It should be closely studied and differentiated from kalium, apocynum, cantharides, rhus tox. The chief guiding symptom for apis mellifica is edema, retention of urine. Urinary incontinence, accompanied by stinging, burning pains, absence of thirst, patient's symptoms aggravated by warmth, ameliorated by open air, cold water and cold bath.

H. H. Redfield.

Chicago, Ill.

ORIFICIAL TREATMENT IN CHOREA AND CHRONIC HEADACHE

A girl of fourteen was taken with inflammatory rheumatism on December 28, 1913. Her temperature ranged from 101° to 104° F. for two weeks, and the swelling of the joints necessitated keeping the patient in bed. I dilated the anal sphincter with my fingers, and in a few days the swelling of the joints subsided, the temperature became normal—and then choreic attacks made their appearance. By January 21, 1914, the patient was bedridden. She could not stand on her feet; speech was unintelligible; she could swallow no solid food, could hold nothing in her hands, and had to be watched night and day to keep from rolling out of bed; she was unable to sleep. When moved from the bed to the operating-table, she jerked all over like a live eel.

On January 21, chloroform was administered to the girl by Dr. E. C. Smith, and her clitoris freed from all adhesions and the anal sphincter thoroughly dilated. When she became conscious again the twitching had practically ceased, and she now was able to eat solid food. On Saturday her speech came back and on Monday she walked. Since then she has been growing like a weed.

Another girl, aged 13, for years had been crying daily because of the pain from chronic headache. Glasses did not help the trouble. Her appetite was poor, her body badly nourished, she could not keep up with her classes in school, and all night long she would roll and toss about the bed.

April 10, 1914, chloroform was administered by Dr. E. C. Smith, and her clitoris was freed from adhesions; also four pockets and two papillæ were cut out from the rectum, and the anal sphincter was thoroughly dilated. The first evening after the operation she ate a hearty meal—and her appetite has been fine ever since. She slept all night when she dropped to sleep, and this has continued up to date. There is marked improvement in her studies. Best of all, her headaches have vanished entirely. Everybody is pleased.

Disease of the sigmoid flexure often will stimulate malignant diseases. Today, in consultation with one of the leading surgeons of this city, I demonstrated, with the Pratt sigmoid speculum and Hall's sigmoid irrigation, the presence of sigmoid disease in a woman whose case had been diagnosed as cancer of the uterus.

JOHN MERIWEATHER.

Richmond, Va.

[Allow us to congratulate you upon the excellent results you secured. We have urged such procedures time and time again, and this writer has employed it in several cases of petit-mal and chorea, with excellent results. We dilate the sphincter ani and circumcize as a matter of routine, and in more than one instance these simple operations proved all that was necessary to bring about recovery.—ED.]

NO SEPSIS HERE

You invite comment on "No Sepsis Here—Why?" Easy! Active immunity is brought about by the invasion of the system by pathogenic organisms. People who from childhood live in filth and squalor become immune to the sepsis-producing bacteria of their environment. In short, people are "immune to their own bugs."

If I have occasion to use the forceps in a hovel, I boil the instrument and cleanse my hands just as carefully as when I am taking care of the bank president's wife. And this, because I may introduce a new strain of germs to the parturient woman, and her resulting sepsis will be my fault and my conscience would never excuse me by faulting the filthy surroundings of the woman, for to these she is immune.

H. K. SHUMAKER.

Flat Rock, Ohio.

NO SEPSIS HERE—ANOTHER COMMENT

Commenting on "No Sepsis Here—Why?" page 441, May CLINIC, I wish to say: "God has provided for everyone according to his means." And, to one the Lord gives five, to the second, two, and to a third, one talent. One who has the knowledge and means is required to use them; from those who have less not so much is required, and, still, they are able to exist. Or, have we not a fair example in our natives, the Indians, or yet among our Southerners, the erstwhile slaveholders, during and immediately after the civil war? The refined slaveholders, after having been robbed of all belongings, were enabled to live in the woods, huts, and such humble places, as did the slaves—and in good health. Nature provides for such as can do no better.

R. WILLMAN.

St. Joseph, Mo.

THE LYNCH SCHOLARSHIP

Dr. Charles F. Lynch has established at The Terre Haute Veterinary College a free scholarship, to be known as the Lynch Scholarship, good for a complete freshman-year tuition, matriculation, and laboratory outfit, all of which will be awarded to the young man presenting the best essay upon the subject of "Hogs as a Source of Farm Profit." The contest is open to every young man of the United States and Canada who is between the ages of 18 and 45.

This is the only prize veterinary scholarship in the United States, and Doctor Lynch's desire in establishing it is, to afford opportunity to some young man to gain a good start in a good profession. Application-blank for entrance, and full particulars (date of close of contest, etc.) can be obtained by anyone interested by addressing (with self-addressed stamped envelope enclosed) Dr. Chas. F. Lynch, in care of the Veterinary College, as per above.

DID THE ETHER KILL THEM?

I wish to say a word about the article in the June number of CLINICAL MEDICINE, page 541, by T. F. Parker, on "The Contagiousness

of Diphtheria." In your comment you omit to say that the ether or chloroform given as an anesthetic is also an antiseptic. It seems to me that ether is decidedly a bug-killer. If I am right, the mask used on the boys was disinfected and could not have carried the germs.

THOMAS W. MUSGROVE.

Sultan, Wash.

"TURN BACK OR GO ON"

"Turn Back or Go On," which appeared editorially in CLINICAL MEDICINE, ought to be printed in pamphlet form and distributed free. My advice to every physician who takes this journal is, to cut out that article (June, p. 469) and paste it in his hat. That is what we all might do with advantage. Turn the crank again and grind out more of the same stuff, Mr. Editor, and future generations of doctors will (maybe) rise up and call you blessed.

GEORGE D. SWAINE.

Cleveland, Ohio.

EMETINE IN PERSISTENT HEMORRHAGE

About two weeks ago a neighbor physician told me of a case of persistent hemorrhage from the gums occurring in a man 72 years old. The patient had a blood pressure of 200, and was very feeble. The Doctor had used various astringents locally, also administered hypodermic injections of ergot, adrenalin, and morphine, but nothing seemed to do the patient any good. The bleeding continued in spite of everything tried. The Doctor said he was ready to adopt any treatment that offered hope of relief.

As I had only recently received some ampules containing emetine hydrochloride and had seen the articles in the March and April numbers of CLINICAL MEDICINE suggesting its trial in cases of hemorrhage, I suggested to my friend to give that drug a trial in his case. Accepting the offer of my emetine hydrochloride, he immediately gave one dose (1-2 grain), which was at 9 o'clock in the morning. By noon, the hemorrhage had entirely ceased. As a precautionary measure, to prevent recurrence, a second dose was given eighteen hours later. I have waited several days, to see the final outcome and am glad to report that up to the present time the hemorrhage has not recurred.

This gratifying experience has inspired in the mind of myself as well as of my colleague a strong feeling of confidence as to the value of emetine for suppressing hemorrhage. I certainly shall use it again just as soon as a suitable case presents itself, and hope that other readers of CLINICAL MEDICINE will do the same. In this way we may have a series of reports of the results obtained from this most interesting remedy.

WILLIAM SELLERS.

Junction City, Ark.

RECTAL HEMORRHAGE CONTROLLED WITH EMETINE

Three years ago last December I began treating a case of chronic ulceration of the rectum of long duration and causing much suffering to the patient, a woman of forty-eight years (married, no children). The trouble yielded slowly, but healed nicely by the following April.

Tenesmus and frequent desire to defecate were relieved, but when the bowels acted there always came blood mixed with the stool. Frequent rectal and sigmoid examinations revealed no ulcers, and I felt that the blood must come from leaking of the capillaries. In March last the hemorrhage became quite free, as much as 1-2 ounce two and three times daily. The usual remedies and astringents applied locally failed to check it. After reading the article on emetine in the March number of this journal, I concluded to try it.

I began, on April 5, with emetoid, 1-6 grain, four times daily. After four days, the bleeding was much lessened, and after two weeks it had ceased entirely. I had the patient take the remainder of the 100 tablets in the bottle—one tablet morning and evening of each day. Since the cessation, there has been no bleeding up to today, June 12. The constipated condition shows improvement, too.

W. F. SCHRADER.

Fort Wayne, Ind.

SOME OBSTETRICAL HINTS

In your next case of parturition, when the pains become weak and ineffectual, get your patient warm, and then have her drink a cup of real cold water; then note the increased power and forcefulness and efficiency of the next few contractions. You will surely be convinced that it is the best, safest, cheapest

oxytoxic on the market. I seldom resort to any other.

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Be sufficiently alert to the gravity of the occasion and see to it that your patient is protected from nervous shocks and scares and worries. Give her sympathy, encouragement, and help—especially the latter. Ease off the rough, jagged edges of her pains; allow her to assume a comfortable position, and not enforce a constrained one. Donate your "britchen-harness" to some mule-driver, and she will withstand a hard labor and a few germs, and make a satisfactory recovery.

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When called to a woman in confinement, clean up, put on your white robe and rubber gloves, and make yourself absolutely clean. Then go to work. Don't spend the valuable time sleeping, reading or washing your hands. If she really is in labor, sit down by her side, take hold of her hands, let her place her knee against your chest, and assist those pains to dilate that cervix. The fellow that howls the loudest about "meddlesome midwifery is the fellow that has the bad luck and complications. The overfastidious antiseptic crank, who stands aloof and treats his patient as though she had the smallpox or as though she were a skunk and might contaminate him, should be kicked out of the lying-in room instanter.

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If you expect to be a great obstetrician, attend every case that presents itself. Don't turn anyone down on account of poverty. Every great surgeon knows he must operate in one-half of his cases for nothing, in order that he may become deft and proficient. Get the knowledge, tact, and deftness that you can get only from the school of experience. I have a good many cases labeled "R. F. D." (Rural Free Delivery); and so will you, if you ever expect to amount to anything as an obstetrician.

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The Ohio State Medical Society met at Columbus last week and held a record-breaking meeting, both as to attendance and valuable papers read. Every section was full of listeners eager to hear and learn. But sad to say, so many of the papers on the most interesting and vital subjects were read so listlessly and in a low monotone that only a limited number of those near the speaker could hear what was said. Consequently those in the rear crowded forward or moved about and talked and joked, or they went out, thereby creating a disturbance, so that but little information was gained, and valuable papers were unappreciated.

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I feel constrained to ask why it is that our brainiest students and scientific investigators, men who are just chuckful of knowledge, usually are such insignificant and unattractive-looking men and come on the forum so humbly and modestly, and will speak so doubtfully and cautiously and hesitatingly when making the most incontrovertable statement, while those pompous, bombastic, fine-looking fellows, who speak out in rich, melodious, sonorous tones, with such an air of confidence that would make black appear white, are always men with some kind of hobby. Verily, not all is gold that glitters.

DAVID E. SPAHR.

Xenia, Ohio.

CRIMINAL ABORTION

Allow me to offer just a little criticism of Doctor Nourse's paper (May, p. 449) entitled "Abortion—Pregnancy—County Society."

One would think, from the Doctor's language, that holding membership in a medical society would prevent abortions (presumably criminal abortions). Membership in a county medical society, lodge or church is no proof that the holder of it is not a "catheter-pusher." Within the last two years I have treated a number of cases of puerperal septicemia, and in every instance the patient gave a history of a criminal abortion, naming the operator, whom on investigation I found in each instance but one to be a member of the county society, and in most cases a big-mouthed member at that. The one exception was a retired physician and father of the patient.

Let me cite a case. On April 9, 1913, I was called to see a sick woman, living in the country. The woman, I found, had a temperature of 105° F., a pulse of 140, and complained of very severe pains all through the pelvis and of being unable to urinate. She told me of having been five months pregnant and that three days previous to my visit she had a Dr. M. commit a criminal abortion upon her with an "instrument that looked like a big auger." After telephoning for an anesthetist, I found that the "auger" had made three large lacerations in the cervix and two others in the vaginal wall that extended the full length of the latter. In the womb

there still remained a piece of placenta weighing about three ounces. I managed to save the patient's life, but I doubt very much whether she ever will enjoy the privilege of motherhood.

The point I want to make is this: I reported this case to the president of the county society, only to learn that our honorable president had "cold feet."

Another case. On May 21, 1913, I was called to see a woman living apart from her husband but nevertheless became pregnant, and again this Dr. M. had been on the job with his "big auger." In one respect he did this job a little better than the one just related, that is, there were no lacerations; still, the septic conditions I found were much worse, and for several days it looked as if my patient would "cash in." It got so that she would talk to the angels while the relatives were about the bed praying. She recovered —probably the therapeutic agents assisted the prayers.

This case I also reported to the president of our county society, who was also the county health officer. Result: The president and health officer called said Dr. M. to his office, showed him my written report containing names and dates, and then said: "M., you will have to cut it out, or Gebhardt will raise hell."

All of the above is a plain statement of fact, and not a knock on any medical society, for I am a member of that society and hope to remain one. Do not adopt the "holier than thou" attitude and try to make the public believe every doctor in the society is a saint, while every doctor out of it is a devil. For, that is not true. I know of some rascals that are members of our county society, while, on the other hand, one of the squarest, one of the most broadminded doctors I ever met is not a member. I hope that some day medical ethics will become a reality rather than a by-word and a joke.

A. A. GEBHARDT.

St. Louis, Mo.

[To which "hope" we say "Amen!"—ED.]

"MUDANG," OR "P'ANSU": A CORRECTION

Dr. Newton H. Bowman calls our attention to a slight error appearing on page 311 of the April number of CLINICAL MEDICINE, in his article on "Domestic Medicine in Korea." In the eighth line from the bottom of the first column the statement is made that the mudang or p'ansu are "men recognized by the ignorant heathen population as being the official mediators between evil spirits that cause disease and their victims." As a matter of fact, Doctor Bowman points out that these persons are not both of them men, but, rather, the former is a man, while the latter is a woman. The reader will, please, make the necessary correction in his April copy of the journal.

RESUSCITATION OF THE NEWBORN

I wish to remind L. J. Graves, of Leighton, Alabama, who, in your May issue (p. 447) gave his method of resuscitation of the newborn, of the saying that "there is no new thing under the sun." I have used the same method for more than twenty years; but, in addition, I place 1-100 grain of nitroglycerin dissolved in a half teaspoonful of water on the babe's tongue, and keep the pump on the hop —and the rosy cheek, quivering lip and the characteristic cry will soon follow. I use the nitroglycerin in cases of drowning, keep the pump on the move—and success is the reward.

C. C. PERRY.

West Rutland, Vt.

INFECTED WOUNDS

In your May issue of CLINICAL MEDICINE, page 380, you ask, "What would be your treatment of such a condition?", the reference being to infected wounds. As for myself, I should cleanse this wound with dioxide of hydrogen solution and then apply specific echinacea in full strength; also give internally 20-drop doses of the same every two hours. Meanwhile subject to a course of calomel, followed by a laxative saline. I should expect such treatment to cure the patient.

JOHN FREEMAN NEAL.

Lytle, Tex.

HONOR FOR DOCTOR REGISTER

At a recent meeting of the Tri-State Medical Society of the Carolinas and Virginia, Dr. E. C. Register, who has been editor of the well-known *Charlotte Medical Journal* for twenty-five years, was elected president.

PITUITRIN IN OBSTETRICS

Called to see a sick woman, I found her in labor-pains, and, making the usual examination, I found everything moving along

nicely, with the water yet intact and a 2-inch dilatation of the cervix. I ruptured the membranes and found the child in L. O. A. position. There were light and irregular pains. I gave an ampule of pituitrin hypodermically. The baby soon was born and everything seemed to be normal. The cord was ligated and the baby turned over to the nurse. There were no intermission of pains at all.

I suspected something else; so, I again cleansed my hands and made another examination. There was another babe, breech presentation, the breech well advanced into the pelvis, with no chance for version. This babe also was quickly delivered, except that after coming of the head after a slight rotation of the head was made, birth was soon completed. To my surprise, it was a lifeless baby —apparently. The cord was ligated, and a basin of hot water was called for, as I always require this to be in readiness.

Now, of course, we all have our little hobbies that we partly gain by experience. Have the water at 70 degrees, and plenty of it, so as to cover the baby's body. Place the baby post down, then frequently change from post to ante position, making such changes as much as possible, to keep the head out of water, which gives the lungs a chance to expand and contract every one or two minutes. Draw the child's tongue forward. Remember to increase the temperature of water every two minutes, until as much as 130° or 140° F. is reached, if necessary. [This temperature seems very high.—Ed.]

Advantages of this method: (1) General stimulation. (2) Gravity. The tongue drops, glottis opens, giving a chance for air to enter the lungs on inspiration. Also, if any mucus is present along the respiratory tract (in the trachea and bronchi), some of it will readily come out.

I realize, to start with, that at this moment we have a change of circulation to deal with if from any cause the fetal circulation should be cut off some two or three minutes too soon. Then, of course, systemic circulation has no place.

Bodily functions are produced by vital force, heat produces stimulation, stimulation produces vital force. Of course, we may have exceptional cases, but, generally speaking, in all ordinary cases the infant usually reacts, when this method is carried out.

Do not get disheartened and quit work with the baby too soon, for sometimes the last two or three minutes' work with the babe means lots to the baby, and to the doctor as well.

A question: Did the physiological action of the pituitrin cause the lifeless condition of the second babe? Both babies live and are a normal pair, each weighing seven pounds.

C. P. MITCHELL.

Byars, Okla.

LA ISLA DUVIDA: THE ISLE OF PINES

Possibly the "family" will be glad to hear a disinterested word about this corner of the world, officially known as the "Isle of Pines, or in its proper Spanish, La Isla de Pinas; but which sarcastically, but most incorrectly, the American colonists love to call No-Man's-Land, and which The Great Discoverer probably would "put on the map" as "Isla Duvida." For, be it known, Uncle Sam "got it" the same as he "got" Porto Rico, but left it to Cuba as the *de facto* government, "pending its ultimate disposition by treaty," and that's why the American settlers are so "unsettled."

Be that as it may, the Isle of Pines is in the Carribean Sea, 60 miles south of the south coast of Cuba and due south of Key West, and in the same latitude as Mexico City, Honolulu, French Indo China, and Assuan in Egypt. Also its north shore is 90 miles directly south of Havana. Hence, the island is well below the frost line, the winter temperature hardly falling below 50 degrees, and reaching that point rarely. It is about 40 miles by 60 miles in extension.

The soil is mostly very poor, being of a porous sand and coarse quartz gravel, and this is covered by a scant growth of coarse wire grass which has to be burned over every winter. The island derives its name from the fact of being completely covered by pine forests. The water is fair and in a few places there are springs called "magnesia" springs; also some carrying sulphur or iron. The coast is low and covered with mangrove swamps, there being only a few sandy beaches.

There are living at present about 3500 Americans on the Isle, and about 2000 Cubans (or Spaniards) and negroes. The American population fluctuates considerably. The chief enterprises of the settlers is grape-fruit, pine-apple, and vegetable growing. The natives raise cattle and hogs and burn charcoal. But fertilizing is necessary in vast amount, and this is very costly, so that fruticulture is a rich man's pastime only rather than a get-rich-quick for the impecunious amateur farmer from the states.

As a health resort, the Isle has a wonderful future, though recently there have occurred a

few cases of typhoid fever from a polluted water supply, but malaria and yellow-fever have never been known here. Rheumatism yields almost immediately to the climate alone, without treatment, and catarrh and all throat and bronchial troubles disappear as if by magic. Pellagra and hookworm disease are unknown, and the contagious diseases of childhood have not reached here yet. I do not know about skin diseases, except that personally I have been a life sufferer from psoriasis but after a brief stay here my skin has become as smooth as a babe's while my catarrh also is gone. Coughs and colds are little here, although consumption is taking off many natives.

However, the law of compensation holds good here as elsewhere. Men who have lived here a few years have very little "ginger" left in them, and they cannot work like they do in the States. The American women look unhealthy; they are about the color of Swiss cheese, and they are generally on the retired list (with the accent on the *tired*), and they are generally discontented (and not to blame). The children do not look good, either. They have no color and are soft and lifeless, as compared with children up north. The birth rate among Americans is very low; which is a blessing, considering the cost of living—which is much higher here than in the States.

Everything shipped in here must pay a duty to the Cuban government, and everything sent out must pay a duty to the United States: so, we get stung coming and going. If this were American territory (as, by rights, it should be), all would be well and the American settlers—who made this island worth while—could win out; but at present the outlook is not encouraging for us.

There are two licensed American doctors on the island, but one of them just now is away doing postgraduate work. I have met Dr. A. S. Draper, of Santa Barbara, who is the one holding the job down all alone. Doctor Draper is a Harvard man, and a fine fellow, but he wants to go away on a visit to the States. He tells me he is quite busy; nevertheless, he has a far-away eye on his old home up north. There certainly is an opening here for an all-around man, while the future is fairly good. Anyone interested may write to Doctor Draper, Santa Barbara, Isle of Pines, Cuba.[1] There are two or three native Cuban doctors, but several American women have left here and gone to the States for prospective confinement rather than be attended by a Cuban physician.

The people here are living in the hope that some day Uncle Sam will take this Island in out of the wet. At the close of the Spanish War the Isle was supposed to be American territory, the same as Porto Rico, and the land was bought up by Americans and thousands of our people came here with that understanding, only to find themselves off the earth, without schools or American laws. But with true American grit they have made the best of it: and the very flower of American manhood is represented here.

Among the drawbacks here the insect pests are quite bad, and some kinds are here the year around. There is no poisonous vegetation. There are quite a lot of snakes of large caliber (even boa constrictors in the "big" swamp), but they are not poisonous; still, they devour chickens and birds. Also along some of the rivers there are alligators not a few and do give people a scare. Of still greater interest is the fact that in the "cienega"—the large swamp to the south—there still abound specimens of that nearly extinct water mammal, the manatee, or grass-eating sea-cow. We have very little meat here, except tinned stuff; and no milk or butter, and no northern fruits, except in cans, and costing twice as much as in the States. Practically nothing will grow here unless it is heavily fertilized, and then only in the winter months of October to April.

Down on the south coast of the Isle there is a wonderful stretch of coral formation, with beaches and rocky bluff fronting the almost tideless Carribean. All the year round there is bathing and fishing, and the shores are strewn with a wonderful variety of conch-shells. There is fine drinking-water from the wells in the coral rocks, of which the lower third of the island consists. Back of it in a humus mold in "pockets" in the coral there is a vast growth of hardwood jungle, interspersed in spots with bananas, coconuts, and sweet potatoes planted by British settlers.

On the coast, there are hardly any insect-pests, but they are terrific inland. The sea is calm and warm, with very few storms; and there are wonderful marine gardens that surpass those of Catalina Island—and I have seen both. There the summers are like a northern spring and the days are cooled by frequent traveling showers and soft breezes from the sea. There is no winter—it is a land where it is always afternoon and *dolce far niente*. When your great northern

[1] Our correspondent forgot to mention (or was not aware) that a foreigner must pass a state examination in Spanish, at Havana, and at considerable cost—unless this has been changed of late at the behest of our State Department.—Ed.

world of civilization and wealth once learns of that spot, they will appropriate it for themselves; and its distance of only thirteen hundred miles from New York will be bridged by a fleet of luxurious boats.

A. J. CRAIG.

Los Indios, Isle of Pines.

AN AMERICAN DOCTOR STUDIES TYPHUS

An American doctor, Clarence D. Ussher, has received hearty and public thanks from the vali of the Turkish vilayet of Van for his "humane zeal and care for the sick" in the recent epidemic of typhus among the Turkish soldiers quartered in the city of Van. Doctor Ussher is in charge of the American Board's hospital in Van. He is a graduate of Kansas Medical College and has been in Turkey since 1898.

Van, the city, is the center of the Turkish province of the same name, away up in the northeastern corner of Asiatic Turkey. On its eastern border the vilayet joins Persia while on the north it is very near the Russian Caucasus. The city is on the shore of Lake Van, a large sheet of water whose surface is 5500 feet above tide level. The city is said to have been built by Semiramis and strange and interesting inscriptions and carvings are found in and about it.

Since the American Board began work there the mission has been through war, famine, pestilence and massacre and the epidemic of last winter will take its place in the history of calamities which Americans have helped the people to fight.

The Turkish military authorities were not insistent on cleanliness and sanitation and after the epidemic started it made rapid headway so that over 2500 soldiers are known to have died of the disease. Dr. Ussher was active wherever he was permitted to serve but had not access to the barracks or to the military hospital. In the Board's hospital, however, and in going about among the sick in the camp and in the city he made careful study of the disease and says:

"We have proved very conclusively in our hospital that the only means of infection is vermin. Our nurses have been thoroughly exposed to every form of contagion from the breath, desquamation, discharges, constant association day and night, and all this in an over-tired condition, and not one of them contracted the disease. The typhus patients have been put in the same ward with surgical, pneumonia, dysentery and even confinement cases, and not a single patient has become infected in the hospital. One of our nurses subjected himself to infected body lice, and promptly contracted the disease (incubation, I think, five days). I personally removed the lice from his body. We have become so sure of the mode of infection that, being compelled by the lack of bedding, we put patients with other trouble in the beds which had been occupied by typhus patients. We made no further change than clean sheets and pillow covers; and though in several cases the limit of incubation has passed twice over there has not been a single infection."

HARD WORK

Hard work is the hammer that pounds the nails
  Of certainty into success,
He who misses the nails is one who fails
  And works on the job less and less.

Long hits bring applause, but team-work wins
  The pennants for which we all strive;
Though some by their wits may seem to make hits,
  None but the hard workers survive.

There's many a man who has all through life
  A promising future ahead,
That never redeems the pawn of his dreams,
  Whose note is a promise that's dead.

The reason most men fall down by the way
  Is that they don't "try, try again."
'Tis surely a crime to waste all our time
  Resolving, not doing like men.

Do big things this year, determine to win,
  And let us all work with our might.
When we are inclined, we always can find
  The time to do anything right.

Big opportunities come to big men—
  My dear boy, remember that fact.
Then let us grow, so the whole world may know
  That when the time comes we will act.

The fellow who lands the orders is he
  Who knows how orders to obey;
And, if he will work and not try to shirk,
  You'll hear his report some fine day.

There's nothing succeeds like success, we are told;
  But drones cannot figure out how
A thing well begun is easily done—
  We don't live tomorrow, but *now*.

HOMER CLARK BENNETT.

Lima, Ohio.

AN HONOR FOR DOCTOR LYDSTON

We are pleased to announce that at its last annual convocation the Hamilton College of Law conferred upon Dr. G. Frank Lydston the degree of Doctor of Civil Law. Our compliments to Doctor Lydston and our congratulations to the College, which honors itself as well as Doctor Lydston.

Just Among Friends

A DEPARTMENT OF GOOD MEDICINE AND GOOD CHEER FOR THE WAYFARING DOCTOR

Conducted by GEORGE F. BUTLER, *A. M., M. D.*

I HAVE just finished reading a little book, "Hysteria," written by Dr. A. W. Thornton, and in it occurs the following significant passage:

"After a connection with the medical profession, over forty years, I can look back, and safely assert, that more than one-half the practice of physicians, with female patients, consists of cases of hysteria, and its mimic, and nothing else, doubtless taking some of its protean forms.

"It is not long ago that a patient of this class came under my observation, and inasmuch as in this class are embraced some of the crying evils of modern society I will describe it here somewhat at length.

"I was sent for in all haste to visit a lady who, I was told, was suffering *agonies* (it is always 'agonies,' 'tortures,' 'awful misery,' 'excruciating pains,' etc.) from pain in her chest or stomach—she did not know exactly where. (Again, it is always pain in some place where its absence cannot be detected, so that the physician is forced to rely upon the patient's statement—a bruised reed, truly, to trust to!) This pain, the woman informed me, had been so severe that she could not await my arrival (although I resided but a short distance from her home), but was compelled to take some medicine she had. This had been prescribed by a former medical attendant, but it had done her no good, she said; would I not give her something to afford relief right away?

"Up till now the woman seemed to be suffering intensely from continuous pain; but, as I began to inquire about her case and symptoms, she quickly launched into a long and elaborate description of her various troubles, totally forgetting, in the interest of the subject, her present suffering until the theme was exhausted. Then an immediate return of the pain took place as exaggerated as before. I told her I could not think of giving her any medicine so soon after her taking a dose of something, the component parts of which I was ignorant of; I admonished her to have patience and to give the medicine she had just taken a fair chance to operate; promised to call the next morning; then, I said, if she were not better, I would take her case in hand. Upon my arrival next morning, I found the woman in the same condition, and, since there was nothing serious the matter, I gave her a mere placebo—one of those medicines that are intended to satisfy the patient's mind without injuring the constitution, meanwhile affording a respite to obtain a full understanding of the condition.

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"It must be remembered that this lady had, by her own account (?), for two days and nights been suffering 'intolerable torture,' pain which, if real, naturally would have left her prostrated for a day or two more after so severe an attack. As a matter of fact, upon my calling next day I found she had joined a picnic party!

"When next I saw her, she told me that that was a peculiarity of her case (they all have some 'peculiarity,' something different from everybody else's—something more, or less, out of the common); that as soon as the attack of pain left her she was as well as ever and able to join any fun or excitement. I told her I knew it, that this generally was so with hysterical patients, that hysteria was all that was the matter with her, and it was of no consequence whatever. Then, when her husband asked what I thought of his wife's trouble, I told him plainly that there was nothing to be alarmed about, as it was only hysteria.

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"Perhaps some of my readers may think I did not feel very much sympathy for that patient—and I must acknowledge the fact. To explain the matter, however, I must enter a little more into detail, so that the reader may get at the 'inner consciousness' of it; and this I may do without any breach of confidence, as no names are given and she has died of measles since then. This lady was of a peculiarly bright and lively disposition; she had a tendency to torpidity of the liver; had five or six neglected children; and she had

become so demoralized by the troubles connected with the proper performance of a mother's duties that she and her husband had determined to have no more additions to the family and had systematically adopted some of those abominable modern practices for that purpose, and the knowledge of this fact had disgusted me with her."

Doctor Thornton, in the book cited at the start, cites a number of cases of hysteria that are extremely interesting. I will give them herewith:

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"*Lethargy.*—A few years ago, the village of Thenelles, in the department of Aisne, was excited over a young girl who had been in an unbroken slumber for four years! The fame of this case spread abroad, till the report at last reached Paris, and some of the doctors determined to investigate it. In their published account, they told how they tried to cure the case, notwithstanding the opposition of the mother, and even appealed to the authorities to interfere. The lethargic subject was then twenty-five years of age, and presented considerable emaciation of her lower limbs. Her sleep had never been interrupted. The eyelids closed, and when opened showed her eyes convulsively turned upwards, and blowing upon them did not cause any reflex action of the lids. Her jaws were tightly locked, and some of her teeth had been broken off in efforts to open her mouth. The muscles contracted at the least breath or touch, and the uplifted arms retained the position they were given. The subject, a very nervous, irritable girl, suddenly had fallen into this state after intense fright. She was noruished by liquid food, poured into her mouth.

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"*A Typical case.*—The Countess de W., in Paris, accused her maid of having attempted to poison her, and the case became a *cause celebre* in the Parisian law courts. Crowds of women, of the upper classes and aristocracy, crowded the courts sympathizing with the dear countess. After a sensational trial, the court of justice, acting under a false impression, condemned the unhappy maid to death.

"However, the judgment was quashed, and a new trial was held, when fresh evidence was brought which fully established the innocence of the accused maid, and that unhappy creature, already once condemned to the scaffold, was acquitted by an unanimous verdict of the jury. But what of the dear countess? It was fully proved, that she was her own tormentor—having bound herself up in bed, and herself poured out the poison, which was still to be seen blacking her face and breast. Yet, for the sake of gratifying a morbid desire for notoriety and sympathy, she had no hesitation in having an innocent girl condemned to the scaffold, and carried out her false accusation and persisted in her perjury with such cleverness as to deceive both judge, lawyers, and jury, being utterly regardless of truth, honor, or honesty.

"She afforded an example of that mental condition which has been the cause of numberless false charges, made and sustained against innocent men, of the same character as that of Potiphar's wife of old against Joseph. So notorious has this characteristic of hysterical women become that lawyers of experience are very shy of giving full credence to the statements of their female clients. I doubt not, that many such charges could be quashed by satisfying the courts and juries that the women making them are subjects of hysteria, and only demonstrating some of the well-known vagaries of that disease.

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"*Hiccough.*—Doctor Baillie has described the case of a girl, age 15, of sanguinous temperament, who suffered from this affection in a remarkable manner. The disease seemed to have been caused, first, by great excitement at a party at which she had been present, where she attracted considerable attention and drank freely, and second, by a severe scolding which she received from her mother soon after. The attack began with the usual hysteric fits of great strength and frequency, and which attained a periodical tendency and were treated with quinine.

"This symptom was followed by hiccough, which at first was so gradual that it did not excite any alarm, until it became a prominent symptom of the disease and resisted every attempt to subdue it, although ether and laudanum were exhibited in doses so large as to require remedies to counteract their poisonous effects. The influence of a violent fright was next tried with but partial success, and the hiccough returned in a few days.

"When the patient was first seen by Doctor Baillie, the hiccough had existed fourteen months, and for the last seven had ceased only during sleep. It was so loud that it would be heard a distance of two hundred yards in open air, and was much quicker than ordinary hiccough. Also, on going to bed at 9 p. m. she invariably had a peculiar hysteric attack which began with loss of sensation and motion, and was soon followed by a

convulsive effort of the respiratory muscles in which all the muscles of the back seemed to sympathize. The fit was generally succeeded by hiccough, which gradually gave way to sleep. After a time some improvement was apparent, and she was sent to the country and the case lost sight of."

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There are many complaints peculiar to women incidental to the period from 14 to 21 years of age. Under existing social arrangements, puberty is, in man, often attended by moral delinquency, but rarely by bodily inflictions. In woman, however, the reverse is true, for, while retaining her moral health, as a rule, she is subject to numerous bodily infirmities, which may generally be prevented and always relieved. The knowledge of "what ought to be" will prevent a woman from being satisfied with "what is," and will lead her, when suffering, to consider whether the ill health may not be caused by the wrong performance of some particular function, and whether medical advice is not required to place her constitution on a sounder basis.

The sex-function to be healthily performed, should fulfil the following conditions:

1. It should be uninterrupted, otherwise chlorosis may occur.
2. The function should be performed neither more nor less frequently than once a month.
3. The pain attending it should not be too violent nor of too long a duration.
4. The flow should not be excessive nor of too long continuance.
5. The monthly flow should never be suddenly suppressed.
6. The menses must not be accompanied by too much mucous discharge or "whites."
7. The monthly function should not be attended by marked nervous symptoms.

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The most frequent nervous symptom at this period is a peculiar cerebral symptom, not actual pain, sick headache, or hysteria, but *pseudonarcotism*, which is a dull, heavy, stupid feeling, with a great tendency to sleep. It is seen in the greatest intensity previous to puberty, and at the change of life, and in the vigor of womanhood, as a consequence of sudden suppression of the menstrual flow. It varies from a slight heaviness to variable shades of intensity, which prompt women at different periods of life to complain of "dimness of vision," or of "a heaviness in the head," "a stupid feeling," "a feeling heavy for sleep but without pain," "of feeling lost and bewildered," "of the fear of going mad," and so on.

When the nervous system has been debilitated by want of exercise or food, by overtaxing the mental powers, and the like, it can no longer bear the reaction of the puberic crisis, and the undue accumulation of nervous power in the brain may vent itself in various ways. The same results will be still more likely to occur, if a bad system of physical education has induced permanent derangement of the monthly function. Thus a continued nervous hysterical irritability may be engendered, modifying all the complaints to which women may be liable, imitating most of them, and often baffling the sagacity of the most able physicians.

This nervous irritability will for a time accumulate like poison, rendering a young person low-spirited and melancholy, or it may produce a foolish kind of bashfulness. But this state cannot last very long; a point of saturation being reached, a reaction comes on, and the patient now becomes either "giddy from constitutional joy, and fuddled with animal spirits," or successive convulsive attacks consume this accumulated nervous poison, relieving her for a time, but leaving her exhausted and predisposed to a return of similar attacks.

Hysteria is not only shown by continued lowness of spirits, and other symptoms I have described, but also by strange pains. These pains may exist without any immediate connection with hysterical attacks. They seem to be the exaggeration of the pains in the head, the spine, and the limbs, which are so frequently observed during the monthly flow, and in uterine affections.

When these hysterical pains persist for any length of time in the spine, or in the vicinity of the hip-joint, they naturally suggest that they may be caused by some serious disease of the bones; and then it frequently occurs that girls are for years confined to the bed, while exercise, amusements, change of air and scene might cure them in a few months.

I have noticed that many nervous affections are "catching"; that as the vibration of one chord causes similar chords, attuned to the same note, and within a given sphere, to vibrate to the same tone; so the mysterious vibrations of the nervous system of one girl may cause that of another to vibrate in the same hysterical way. Sisters, therefore, particularly if younger, should not be allowed to witness such attacks; and in school the sufferer should be placed in a room without any youthful companions.

Among the Books

NASCHER: "GERIATRICS"

Geriatrics. The Diseases of Old Age, and Their Treatment. By I. L. Nascher, M. D. With an Introduction by A. Jacobi, M. D., and 81 Illustrations and 50 Plates. Philadelphia: P. Blakiston's Son & Co. 1914. Price $5.00.

In another review we have pointed out the significance of the differences which pertain to the nature and course of disease in children as compared with adults. Equally important and significant are the differences which characterize the pathologic processes of old age; constituting a branch of medicine almost, if not quite, as distinctive as that of pediatrics, and to which of late the term geriatrics has been applied. As the developmental factor, in all of its ramifications, profoundly modifies the pathologic processes of infancy and childhood, so must we consider that the degenerative or subinvolutional factor influences just as profoundly the pathologic processes of old age, and calls for a distinctive diagnostique and therapeutics.

It is to the task of separating out these diagnostic and therapeutic elements of geriatrics that Doctor Nascher has been addressing himself during the past ten years or more; and his book, now under consideration, contains the winnowed results of his task. No such work has appeared in this country since Charcot and Loomis' "Diseases of Old Age" was published in 1881, and that was partly a translation from lectures of the French physician; so that Doctor Nascher's book really is the first American book upon the subject.

And it is a masterly work, such as we cannot hope to review adequately in the limited space at command. It must be seen and read to be appreciated, and we highly recommend our readers to procure and study it. Not least among its good points is its earnest advocacy of alkaloidal therapy in the treatment of old people—a most rational clinical principle; for, if there be any physiologic conditions under which the exact dosage and accurate markmanship of the alkaloids is of special value, they are to be found in the unstable periods of childhood and old age. The preface to the book is most appropriately written by Dr. Abraham Jacobi, the distinguished pediatrist.

KELLEY: "SURGICAL DISEASES OF CHILDREN"

Surgical Diseases of Children. A Modern Treatise on Pediatric Surgery. By Samuel W. Kelley, M. D., LL. D., honorary professor of surgical diseases of children in the Medical Department of the National University of St. Louis. Illustrated. Second edition, revised and enlarged. New York: E. B. Treat & Co. 1914. Price $5.00.

We are not in the habit of regarding pediatrics as anything like so distinct and definite a specialty of medicine as, let us say, gynecology or nose- and throat-work. Indeed, specialties which confine themselves to this and that part of the body or to this and that organ and function are multiplying with each passing year, while the specialty of pediatrics seems to be just as rapidly declining, or else becoming swallowed up in other specialties encroaching upon and overlapping it. Yet, there are excellent reasons for the assertion that, of all the branches of medicine to which can possibly be ascribed the dignity and status of a specialty, pediatrics is the most distinctive and the most entitled to such a separation.

The factors of inheritance, developmental pathology, excessive reaction to stimuli, and others that readily will occur to the thoughtful student serve to engender a group of disease in children to which the adult is a stranger, and also powerfully to modify those diseases which they share in common with adults. Of all these factors, that of development is undoubtedly the most significant. The fact that the child is *unfinished*, is still growing, exerts a profound influence in shaping its pathology, as it does in shaping its physiology.

In internal medicine, to be sure, these considerations have received a certain degree of recognition, although, in our opinion, not nearly enough. But in surgery, where one would think that they ought to have even more weight, they have been strangely ig-

nored and neglected. We are not speaking so much of what technically is called orthopedic surgery, as of surgery in general. Doctor Kelley stands almost alone, so far as the literature of this country is concerned, in his demonstration of the deep-lying differences which distinguish and separate the surgical diseases of children from those of adults, and in his clinical application of these differences.

We have no hesitation in declaring that Doctor Kelley's book is a great work, not alone in its actual content, but in the broad viewpoint in which it sets the whole subject of which it treats. Clinically, it is as complete as care and judgment could make it. Scientifically, it is almost epochal. The present edition contains a great deal of new matter; not, as the author says, everything new that has been proposed, but such as is likely to have permanent interest and value. We trust it will meet with the reception and adoption that it deserves.

GORDON: "NERVOUS DISEASES"

Diseases of the Nervous System. For the Student and General Practitioner. By Alfred Gordon, A. M., M. D. Second edition, revised and enlarged. Philadelphia: P. Blakiston's Son & Co. 1913. Price $4.00.

Neurology is not making any great advance on its own legs. Whatever progress has taken place in the last few years must be credited to the carrying power of the pathologist and the physiologic chemist. Or, to change the figure rather abruptly, the penetrating and illuminating light which the pathologist and the physiologic chemist have lately been flooding through their own sections of internal medicine naturally has overflowed into neurology and shed some suggestive light (to say the least of it) upon many of its obscure problems.

It is not surprising, therefore, to find that most of the advancement represented in this new edition of Doctor Gordon's book on nervous diseases is of this indirect character, relating to pathological findings in the cerebrospinal fluid, the Wassermann reaction, and the like. The only feature of progress belonging legitimately to neurology itself is Freud's principle of psychoanalysis, of the net value of which, to be sure, we believe there can be no question, but whose practical working-details are still the subject of great confusion and vigorous disputation. These elements of change in the neurological situation are set forth in Doctor Gordon's revision with the same discrimination and regard for practical values that he observed in his former editions. He has had principally in view the general practitioner. Treatment has received special attention, in accordance with the new data accumulated, such as the various sera, salvarsan, surgical procedures, and such like.

LAGARDE: "GUNSHOT INJURIES"

Gunshot Injuries: How They Are Inflicted, Their Complications and Treatment. By Col. Louis A. Lagarde, U. S. Army Medical Corps (retired). New York: William Wood & Co. 1914. Price $4.00.

A month or two ago we had occasion to notice a book, written by an English military surgeon, dealing mainly with the effects of injuries from small-caliber bullets, and embodying the results of his experience and observations in the South African war. In Colonel Lagarde's book, now, we have a treatment of the same subject by an American, from the American standpoint, and based upon the author's personal experiences in the Spanish-American war and his observations as a foreign military attaché in the South African and, later, the Russo-Japanese wars.

Like the English book, the present work has a very varied interest. Technically, historically, and economically it is extremely instructive. It differs somewhat, however, from its British contemporary, in that it gives considerably more attention to the clinical aspects of the subject; hence, it is of more interest and service to the general practitioner, who, although he may never serve on a battlefield, is quite likely to encounter cases of gunshot injury in his civil practice, and will know how to value the opinion and instruction of one who has had such wide experience in this class of work. Colonel Lagarde's book is published under the direction of the Surgeon-General of the Army and by authority of the Secretary of War, and therefore bears somewhat of an official endorsement.

CUNNINGHAM: "ANATOMY"

Cunningham's Textbook of Anatomy. Edited by Arthur Robinson, M. D., F. R. C. S., professor of anatomy at the University of Edinburg. Fourth edition, enlarged and rewritten. New York: Wm. Wood & Co. 1913. Price, cloth, $6.50; half morocco, $7.50.

Cunningham's "Anatomy" has, in the last ten years, largely replaced the more volumi-

nous and exhaustive Gray as a teaching textbook in the medical schools of this country and England. It has found special favor in the United States, where it has been even more widely adopted than in its own native land. Gray remains, of course, the classical textbook of descriptive anatomy; but Cunningham adapts itself, in our opinion, much more readily to the practical needs of the dissecting-room and the anatomical laboratory than does Gray.

The present, fourth, edition has a peculiar interest attaching to it—a sad and human interest—in that during the interim between the last and the present revision Doctor Cunningham has passed away. Two other collaborators also have recently died, namely, Doctors Birmingham and Young. The death of these authors has necessitated changes in the authorship of several of the sections. The original plan and style of the book, however, has been retained, and the new edition represents all the most recent advances in our knowledge of anatomy and its physiologic significance.

BALLENGER: "GENITOURINARY DISEASES AND SYPHILIS"

Genitourinary Diseases and Syphilis. By Edgar G. Ballenger, M. D., professor of genitourinary diseases at the Atlanta Medical College. Second edition, revised. With 109 illustrations and 5 colored plates. Atlanta: E. W. Allen & Co. Price $5.00.

Three important innovations have almost revolutionized the clinical aspects of genitourinary diseases and of syphilis in the past few years, namely, vaccine therapy, pyelography, and salvarsan. Indeed, one may say, without much exaggeration, that, in the light of these discoveries, the clinical biography of these diseases has had to be rewritten. Certainly, all the textbooks on the subject have had to undergo complete revision; so much so as almost to amount to rewriting. Thanks to these innovations, this branch of medicine and surgery—which for years was obscured in a chaotic confusion that more than any other department caused it to lend itself most readily to charlatinism and deception—has now emerged into the light and order of something like an exact science.

This change in the state of affairs is, of course, the basis of the revision of Doctor Ballenger's treatise. The only serious criticism we have to make is that it was so long delayed. Doubtless, however, the author was waiting to see definitely whither the trend of the new era would lead. His revised edition embodies all this modern advancement in diagnosis and therapy, in the same comprehensive, well-digested fashion that characterized the first edition. Special attention is devoted to the more common diseases and procedures, with brief mention of the rarer ones. Dr. J. Edgar Paulin has written the section on the Wassermann and luetin tests.

BAILEY: "HISTOLOGY"

A Textbook of Histology. By Frederick R. Bailey, A. M., M. D. Fourth edition revised. Profusely illustrated. New York: Wm. Wood & Co. 1913. Price $3.50.

Reviewing Bailey's "Histology" is becoming about as much a work of supererogation as it is to review Gray's "Anatomy" or Webster's Dictionary. We doubt very much whether there is a school or college in the country, where the biological sciences are taught for any purpose, that does not make use of this classical textbook. And a glance through the present edition moves us to extend this statement into the future and to predict that teachers of histology and biology will continue to select Bailey's as their working-manual.

There does not seem to be anything in the way of advance or innovation in the subject which has not received its proper evaluation and representation in the author's revision. Especial mention, though, may, perhaps, be made of the careful and painstaking work of Dr. Oliver S. Strong, who wrote for the third edition the chapter on the nervous system, and who has thoroughly revised it in the present one. The book remains in a class by itself; it continues, in fact, to be a classic.

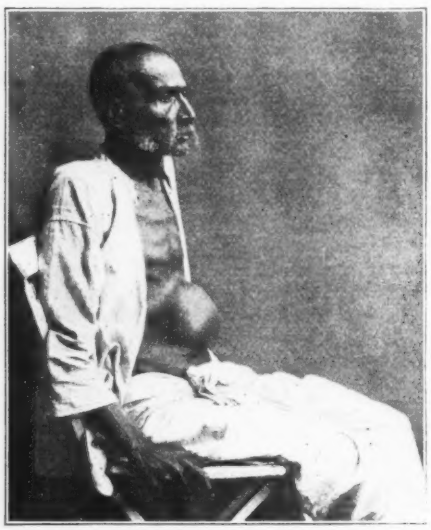
LEONARD ROGERS: "DYSENTERIES"

Dysenteries: Their Differentiation and Treatment. By Leonard Rogers, M. D., B. S., F. R. C. S., of the Medical College and Hospital, Calcutta. London: Henry Frowde, Oxford University Press. 1913. Price $3.75.

This is one of the subjects in medicine in which very notable work has been done and equally notable progress made within the last few years, for a large proportion of which the author of this book himself has been responsible. Two results of this work and progress stand out conspicuously: namely, the intelligent differentiation, both scientific and clinical, of the different forms of dysentery,

and the demonstration of the value of emetine in the amebic form.

Leonard Rogers was, in fact, the first of the great tropical clinicians to establish, by long and careful experimentation, the specific curative influence of the alkaloid emetine in amebic dysentery, his findings being published in *The British Medical Journal*, in 1912. (We may be pardoned for reminding our readers that CLINICAL MEDICINE had been recommending it for many years previous to that.) The book under review is, in reality, a presentation, in more orderly and permanent form, of those same findings.



A case of abscess of the liver. From Roger's "Dysenteries"

The treatise may be divided into two sections: first, that which deals with the differentiation of dysenteries, and, second, that which deals with the clinical use of emetine in the amebic variety. A short chapter at the end is devoted to other forms of dysentery. We cannot forego this opportunity of congratulating ourselves that our position in this matter has received such unqualified confirmation from so high a quarter.

LYDSTON: "SEX HYGIENE FOR THE MALE"

Sex Hygiene for the Male: What to Say to the Boy. By G. Frank Lydston, M. D. Illustrated with 24 engravings. Chicago: The Riverton Press. 1912. Price $2.25.

With his characteristically vigorous and trenchant pen and his brusque, outspoken fashion of calling a spade a spade, Dr. G. Frank Lydston has given us a very manly and straightforward book on this rather difficult subject. But, with his customary good sense, he has avoided both extremes into which writers on this topic almost always fall. He displays neither the offensive vulgarity nor the namby-pamby niceness that characterizes most of the books on sex-questions, but presents in plain, manly language the common sense of science and experience, so that he who runs may read.

This is just the kind of stuff that an earnest, fearless man would talk, even to a mixed audience, without the slightest danger of giving offense, while at the same time sending everybody away feeling that he had had the truth driven home. Amid the mass of sickening wish-wash that it has been our misfortune to have thrust upon us of late on this subject, this book of Lydston's is like a wholesome, refreshing breath of clean, cold air.

We have many inquiries for books of this character, and we are glad that at last we have one which we can endorse without hesitation.

RIVIERE: EARLY DIAGNOSIS OF TUBERCLE

The Early Diagnosis of Tubercle. By Claude Riviere, M. D., F. R. C. P., of the City of London Hospital for Diseases of the Chest. London: Henry Frowde. Oxford University Press. 1914. Price $2.00.

Whatever may be the confliction of opinion as to the precise value of this and that therapeutic measure for the treatment of tuberculosis, upon one point, at least, there is a perfect unanimity of agreement on the subject, namely, that everything depends upon early recognition of the disease. Of all the factors that count, time is paramount. So that, in reality, diagnosis remains the prime element in successful treatment. In this matter of diagnosis, as the author wisely says, misguided enthusiasm has misled many as to the actual value of some of the tests, and the position they should occupy. We thoroughly agree with him that, valuable as they undoubtedly are, the newer tests in no way enable us to dispense with the older methods. They can only corroborate physical diagnosis. This is the motif and burden of Doctor Riviere's book. It is a rational and well-balanced summary of the present status of tubercle diagnosis, in which values and proportions are observed with rare discrimination.

Condensed Queries Answered

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report their results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

Queries

QUERY 6020.—"Complete Exfoliation of the Bladder." A correspondent presents the following history of a case and asks for criticism or comment.

The patient a woman, aged 26, of good constitution, with good family history. She was confined December 4, 1913. It was a forceps delivery, on account of a too narrow pelvis. The child was well developed and fully matured, but, on account of its large shoulders delaying delivery of the body, was born dead. The patient was nursed for seven days after confinement by her mother and her mother-in-law. At my daily call they reported the patient as "doing nicely," except that she could not control her urine; which, though, was not thought to be unusual, because of the traumatism to the vaginal orifice, there being a second-degree laceration of the perineum and the floor of the vagina, repaired at the time of delivery. The sutures, however, did not hold and sloughed off in the vaginal discharge that continued to flow throughout the patient's illness. At times there would be a small amount of this discharge, and at these times it was thickish and of a cloudy color, and had a very offensive odor; while at other times there would be a continuous flow of thin clear liquid with less odor.

"On December 12, the patient became restless, and another physician was called in consultation. It was then decided that the bladder was the seat of the trouble, and it was discovered that there was retention of urine. Upon catheterizing, 2 quarts of bloody, ammoniacal urine was drawn off; but, for fear of shock, no more was drawn off at this time. The patient was not relieved, so, about one quart more of the same kind of urine was drawn two hours later and then the bladder irrigated with a 2-percent solution of boric acid, a small amount of which being allowed to remain at the conclusion.

"A trained nurse now was put in charge. By her, the bladder was catheterized every few hours, and then irrigated with a solution of boric acid; and after a few days the urine cleared up and the patient began to feel better. The consultant came over several times, while a daily report was mailed him. As the patient was now in good spirits, and, having more use of her body, the soreness leaving, also the swelling (after hot local applications), it was decided that she was much improved.

"Until this time her temperature had been ranging from 100° to 102° F.; it remained at 102 degrees for four and one-half hours. After a few days the temperature gradually subsided and was inclined to be subnormal. All indications were considered favorable, with the exception of a look of distress and a restless condition that could not be accounted for. On January 8, I called and found the patient feeling good and joining in the conversation and laughing at various jokes; said she would try to sit up some that evening—and she did so for a few minutes.

"However, when I called the next day I found the patient in a bad condition and with all symptoms exaggerated, that is, the pain and restlessness were worse, while the signs of distress on the face were noticeable to all; moreover, she was only halfway rational. On the evening of the following day, the 10th, while I was catheterizing the bladder, the flow of urine became obstructed. I discovered that a membranous substance protruded from the urethra, and, when this was removed, another, much larger, piece of the same kind immediately appeared in the urethra.

The consulting doctor, being in the locality at the time, was called in, and he was present when this last piece of tissue came from the bladder. At his request, I put the tissue in a solution of formaldehyde and sent

it to a reliable biologic laboratory. The report received was as follows:

" 'I looked the sections of tissue over yesterday and find that the major part of the tissue contains muscle-fiber, such as is found in the bladder; the mucous membrane is entirely destroyed, and the infiltration is so extensive that practically no structure except the necrotic cells can be made out.' This, as you see, confirms our opinion at the time, that the bladder was completely exfoliated. I have inquired into this condition and find that it is exceedingly rare. Many of our obstetricians with large practices have never seen a case. The explanation of those cases that have been observed is that it comes after a virulent infection, by which a toxin is developed which destroys the mucous membrane and the muscular coats of the bladder. There are always predisposing causes, such as an enormous distention or the presence of some large irritant.

"A puzzling question in the case was, where did this vaginal discharge come from? On the evening of the 9th, a thorough examination of the vagina and uterus was made by the consultant and myself, and we were unable to find the source of the discharge. At the time, the discharge had a urinary odor and the idea was expressed that possibly it was from the decomposing urine which trickled constantly into the vagina. The urine was loaded with albumin and pus. Examination of the urine before confinement revealed no pathological condition whatever. The patient was in a semicomatose state from January 9 till death, which occurred on the 12th.

"This case was particularly interesting to me, as I never had heard of such a condition; and it so happened that I was fortunate in having in consultation the physicians I did have, one of them being one of the best surgeons in St. Louis, and the other a general practitioner who stands among the highest in his community. The source of the infection was never determined and today remains a mystery, as all antiseptic precautions were used in the case."

As you say, cases like this one, are rarely observed in these days, but there can be no question that you were dealing with a vesicovaginal or a cervical fistula and the naturally following subsequent suppurative cystitis. In this form of cystitis, there is infiltrating inflammation (interstitial), with much pus in the urine, large and small epithelia, leukocytosis, and red blood-cells. The fibrinous bodies rapidly become increased if the urine is allowed to remain strongly ammoniacal. Ultimately, the mucous membrane of the whole bladder is destroyed and cast off; occasionally (especially in a case of this kind) broken up in pieces. Not infrequently fragments block the urethral outlet and require extraction at the hands of the surgeon. A number of such occurrences are on record.

A thorough examination of the parturient tract subsequent to delivery (especially as the perineal and vaginal floor were injured) would, unquestionably, have revealed the tear in the vesicovaginal or vesicocervical septum.

It is possible that the wound may have been caused by the forceps. On the other hand, prolonged pressure of the head on the pelvis, setting up pressure-necrosis, may have been responsible. All sorts of complications may occur, fistulas being cervicovesical, uterovesical or utero-cervico-vesico-vaginal. Where there has been severe pressure or tears of the parturient tract exist, the bladder should be catheterized for several days after the delivery; also, perforation must be excluded. Even the possibility of breaking down of some necrotic area must be remembered. The bladder should be emptied at least every four hours, and hexemethylenamine in 5-grain doses be administered at equal intervals.

This is a most unfortunate case, and it is possible, considering the maintained comparatively good condition of the patient, that her life might have been saved even when exfoliation of the vesical mucosa was occurring. The presence of a surgeon rendered operation possible.

Bacterins, too, would have been of material value. It is regrettable that a postmortem examination was not held and the exact site and character of the primary lesion ascertained.

In response to our private letter to our correspondent, the latter writes:

"I wish to thank you very much for your comments on this case. As you say, this was a most unfortunate case in more ways than one. I have felt that the outcome would have been decidedly different had I not put too much trust in the two apparently intelligent women who had the care of the patient after confinement. I have waited on hundreds of confinements in the eighteen years of my practice and this was the first case where such trouble occurred to this extent. Of course, retention of urine is common in primiparas, but in this case it slipped upon me wholly unexpected, on account of the fact that I considered the nurses in charge

capable of caring for the patient. Still, as sometimes happens, I was deceived.

The question of a fistula was considered in the consultations held, and thorough examinations were made at different times to determine if such were the case; but nothing of the kind could be found. We later decided it to be a case of cystitis, due to the distention from the retained urine. The consultants did not think that the wound in the bladder, if such were the case, could have been caused by the forceps, but from the pressure-necrosis. The medical treatment was as thorough as could be suggested and urotropin and other urinary antiseptics were administered to the fullest extent. When the surgeon was present the condition of the patient would not admit of an operation, let alone the trip to the hospital.

"As for an autopsy, the consultants could not be secured to hold a postmortem examination, as they lived in other towns, while I did not feel justified in attempting it alone. I certainly do wish that it could have been done.

"The doctors called in to see the patient pronounced it one of extreme rarity and something they had never seen, and they were men of experience. Another thing to take into consideration is the fact that in this country not one woman in fifty is ever seen by the attending physician after confinement, and it is so seldom that any complications occur that these are the exception rather than the rule. However, such a case as this gets a fellow to looking out for trouble in every case after that. I do not believe that such as this can ever come up in my practice again, for it has put me on my guard."

We fully comprehend the difficulties you had to contend with, doctor, and also realize how commonly women in isolated districts are left without medical supervision after childbirth.

As you evidently recognize, thorough examination of the patient twenty-four to forty-eight hours after delivery would have revealed any lesions and led to the institution of appropriate treatment. Under such circumstances, it is more than probable that the woman would be alive today. But, as you cogently remark, a case of this kind will cause the practician to watch out for possible trouble in every case.

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QUERY 6021.—"A Theory About Radium." B. A. R., Virginia, writes as follows: "It does not coincide with accepted ideas of matter and force to think of a small particle of radium emitting energy sufficient to produce a burn on the human body and continuing to do so for years and years without losing any of its weight or power. Then, why not consider it as not having any force *per se*, but as a transformer of force somewhat as the reflector in a Crooks' tube produces x-rays, or as a reflector of force as a mirror reflects the sun's rays? We know that there are ever passing electric forces to and from the north pole. Then, why not look upon radium as a substance having the peculiar property of transforming that force into a ray similar to the Roentgen ray?"

We fear, doctor, that your theory will not "do." Scientific men, particularly the Germans, have done an enormous amount of work with radium and other radioactive substances. They have classified its rays, ascertained what they consist of, measured them, even weighed the molecule of radium before and after the transmission of rays, and pretty nearly settled the character, if not the nature, of the whole "animal."

For instance, it may interest you to learn that the alpha rays given off in radium emanations have been shown to be identical with the thorium atoms, and that its atomic weight is known to a decimal point. We thank you, however, for submitting your interesting suggestion. Some of these days we are going to present in CLINICAL MEDICINE a review of recent work with radium; possibly we may get it into our next issue.

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QUERY 6022.—"Emetic Dose of Apomorphine." F. J. M., Kansas, wishes to know: (1) Whether he may expect vomiting from the internal administration of 6-64 of a grain of apomorphine or of fourteen emetine granules of 1-64 grain each. (2) Whether an aqueous solution of capsicin will produce "puking" as surely as tincture of capsicum. (3) Whether the vegetable alkaloids lose strength when put up in pill or granule form? Our correspondent informs us that he is asking these same questions of some other authorities and that upon these various answers will depend a possible "right about face."

It would not be possible to cause emesis with 6-64 of a grain of apomorphine administered by mouth. Bear in mind, doctor, that comparatively large doses of this drug may be given internally without causing nausea even. In order to secure prompt emesis, administer 1-10 of a grain of apomorphine hypodermically. On page 25 of "Alkaloidal Therapeutics," you will find this statement:

"If given by the mouth, apomorphine does not even cause nausea, but powerfully stimulates the secretions of the respiratory mucous membrane."

The dosage recommended is: as an *expectorant*, "one or two granules (gr. 1-64 each) every half to one hour, to effect; as an *emetic*, 1-20 to 1-10 grain hypodermically."

The smaller dose is intended for young children or very delicate women. Solutions as well as (rarely) granules and tablets sometimes turn green on exposure to the air; however, the efficacy of the drug is in no way affected thereby. Such change in color (in solutions) may readily be prevented by the addition of a drop of greatly diluted hydrochloric acid.

You ask whether vomiting should not follow the administration of fourteen emetine granules (1-64 grain). If you are speaking of the pure *emetine* hydrochloride (gr. 1-64), you must bear in mind that this alkaloid is the distinctly expectorant principle of ipecac. As much as 1 full grain has been given without producing emesis. On the other hand, *emetoid* contains both cephaeline and emetine, the former (cephaeline) being the emetic principle. Granules of cephaeline hydrochloride, of 1-24 grain each, are on the market. One or two of these granules every five to ten minutes is the average dose. As soon as vomiting begins, copious draughts of lukewarm water should be drank.

Of course, in large doses emetoid will ultimately produce emesis, but where it is desirable to empty the stomach quickly apomorphine hydrochloride should be the agent of choice.

Now as to the vegetable alkaloids. They do not deteriorate when properly prepared in pill or granule form, provided, of course, that these are kept in closed containers and not exposed to intense heat or moisture.

Concerning your second question: We are not aware that any safe dose of tincture of capsicum will produce emesis. Solutions of capsicin most certainly never should be given for that purpose. Conversely, capsicum or its oleoresin may be administered to relieve the vomiting and retching of alcoholics, very minute doses sufficing for that purpose. Really, are you not confusing mustard and red pepper—the latter an old-fashioned emetic in emergencies?

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QUERY 6023.—"Removal of the Middle Turbinals." C. O. R., Washington, has a woman patient who suffers severely from headache, besides pain and tenderness over the frontal sinus; also, her nose is "stopped up," so that she is constantly feeling very uncomfortable. I find her turbinals are swollen, especially the middle ones on both sides, and pressing on the septum; and even after they are shrunken by cocaine they leave very little room for the passage of air. The patient, who is about thirty years of age, seems to be in good health. Our correspondent does "some nose- and throat-work, more so than the average practitioner;" still, he is in doubt as to what to do in this particular case. He also desires us to recommend a good work on the nose and throat, "one which will tell the general practitioner just what to do and how to do it."

The very meagre data supplied are not sufficient, we must say, to permit us to offer any definite advice; it would seem, though, that removal of a portion or all of the middle turbinals is indicated in the case of this woman. We need not tell you, of course, that removal of the middle turbinal has no ill effect upon the filtering function of the nose; while, on the other hand, the inferior turbinals never should be removed entirely.

As to procedure, submucous resection is given preference by the majority of modern operators; and by this method nasal obstructions may be corrected but the physiologically important tracts of mucosa preserved.

Amputation of the anterior end of the middle turbinal is a comparatively simple operation, and is described in detail in Thomson's "Diseases of the Nose and Throat" (Appletons, 1912. Price $7.50). We do not believe you can procure a more practical and satisfactory work.

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QUERY 6024.—"Ptyalism of Pregnancy." J. F. H., Arkansas, asks: "What would you advise for ptyalism in pregnancy—atropine seems to control the condition, but the patient complains of an excessively dry throat, and she cannot tolerate the drug. She first had pernicious vomiting with the ptyalism, but painting the os uteri with silver nitrate controlled that at once."

Unfortunately, ptyalism of pregnancy does not yield readily to treatment. Atropine, 1-500 grain half-hourly or hourly for two or three doses, then a smaller quantity every three hours, undoubtedly will prove most effective. Hyoscine hydrobromide and hyoscyamine also are useful and may be administered hypodermically.

This writer has had excellent results also from calx iodata; that is, first securing an impression with atropine, and then adminis-

tering the calx iodata three times daily. Begin with 2 grains and gradually reduce to 1-3 of a grain.

As perhaps you are aware, excellent results are said to follow the administration of potassium bromide. We believe, though, that strontium bromide is even more efficacious.

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QUERY 6025.—"Wanted: A Harmless Hair Bleach." J. H., California, wants to know of a harmless preparation that will render the hair of a brunette a clean white color. A lady patient of his admires white hair so much that she would not hesitate to apply such a preparation to her hair (although young yet), provided she could be sure she would not harm herself by so doing.

Probably the safest thing your patient can use is solution of peroxide of hydrogen; dark hair can be bleached with it to a light-brown or absolute white. To use it, all grease should first be removed, then the peroxide is applied full-strength. Were we in the lady's place, though, we should entrust the work to a skilled hairdresser. If for any reason such procedure is impossible, we suggest that she experiment first with a freshly clipped lock of hair. She can then readily discover the length of time the peroxide should be kept in contact with it to produce complete bleaching.

Peroxide does not injure the hair or scalp if rationally used, and the hair grows out again in its natural color; hence, if the lady desires to continue to present a very white poll, she must, from time to time reapply the solution to the roots of her hair. We would earnestly urge her, however, to leave her tresses *au naturel*.

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QUERY 6026.—"Psoriasis of Scalp and Shoulders." J. O. B., Idaho, is treating a man for psoriasis (typical). It first appeared on the scalp and around the edge of the hair, but now involves the shoulders and back. The Doctor "can dry it up, but in a few weeks or months it reappears." The disease is of five or six years' standing. There is no luetic or other taint. The patient is a rancher, is 30 years old, in robust health, with a family history almost perfect.

Psoriasis, especially when it appears upon the scalp and around the edges of the hair, generally proves extremely rebellious to treatment. As you doubtless are aware, it is essential in every such case to ascertain definitely the condition of the body-chemistry. Excellent results have followed the use of liquor arsenii compositus; that is, if given after the acidemia, which nearly always obtains, has been overcome. However, frequently socalled psoriasis in the locality named in reality is seborrheic eczema.

In most cases of psoriasis of the scalp, small lesions are found on the elbows and knees. As you are aware, psoriasis frequently disappears almost entirely during the summer months, reappearing with the colder weather.

Stelwagon, in his "Diseases of the Skin," says that, in the treatment of psoriasis, each individual case must receive careful study, for it is generally found that the patient is in need of treatment as much for himself as for the eruption. All possible etiologic factors should be kept in mind. Let us quote:

"His diet should be supervised, alcoholic stimulants practically withheld, except in old debilitated subjects; smoking kept within moderate limits or interdicted, and an excess of tea, coffee, and richly seasoned food avoided. In many cases, it will not be necessary to interfere with the diet, beyond limiting it to easily digested food; in others, especially in those of a plethoric habit, meat should be cut down or for a time prohibited; in still others, in anemic individuals, a rather liberal dietary should be allowed, with a full quantity of meat. The state of the nervous system should be inquired into, and all depressing influences guarded against. In fact, the patient is to be placed in as perfect a state of health as it is possible to attain. Open-air pleasures and sufficient exercise, systematically taken, will, in some individuals, have a material effect in aiding the medicinal treatment. Living as much as possible in the sunlight is beneficial (Hyde and Montgomery) —psoriasis is not common upon exposed parts."

In this case, the patient should wear a cap or hat which does not shade the affected area.

We suggest that you make a thorough physical examination and report your findings. It would be well also to have the urine examined.

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QUERY 6027.—"Exfoliative Erythema." A correspondent presents the following clinical data and asks us to make a diagnosis and outline the treatment.

A woman of twenty-five, married, two years ago had a miscarriage at five months. Her father is living, but her mother died of consumption. There is no specific history of any kind. The patient's weight at this time is 126 pounds, this being 15 pounds heavier than she ever has been before. When she

was 11 years old a number of symptoms began to make their appearance, as follows:

All over the body and scalp her skin will get dry and crack, assume a purple color, then peel off as in scarlet-fever. When warm weather comes on the accompanying prickling sensation causes intense pain and itching; at times, when she is about to take a step and the prickling occurs in the sole of a foot, it causes the leg to contract and she falls to the ground. The prickling begins at any time when she becomes heated. When the hot weather comes on and the skin becomes thoroughly active, the trouble disappears entirely, but will start again in the fall and continue until the hot weather of the following summer.

"The skin, to the touch, is dry but smooth, except for the scales; the scales do not leave a discolored spot beneath. At times, on the skin, there are long marks as though a pin had been drawn over it, and it appears as if it would crack, but does not. At rare interbals a few pimples form here and there. Her tongue is very red and large, having the appearance of raw beef. Her bowels are regular and menses are normal. Certain articles of food, that is, peanuts, cabbage, and carrots physic her. Milk disagrees with her. Her appetite is very good and she can eat heartily at all times. Her father has been—and still is—affected with this same trouble. The peeling, or scaling, of the skin and all of the symptoms mentioned are continuous, except for two or three months during the very hot weather."

We have very carefully considered the clinical data presented, and are frank to state that we feel unable to make a definite diagnosis. Evidently you have to do with some peculiar form of desquamative, exfoliative erythema; but, as perhaps you are aware, there are various forms of this condition, the diagnosis of which not always is easy.

In these conditions, occasionally only a part of the body is involved; then, again, almost the entire surface. Constitutional disturbance may either be insignificant or severe. Frequently at the onset of an attack there is more or less elevation of temperature. The initial rash may be punctiform or present a scarlatinous appearance, the color varying between a bright-pink to a deep- or even a violacious red. Recurrences are not at all uncommon. Thus, it seems, you are dealing with a recurrent exfoliative erythema.

The various cases of "skin shedding" reported undoubtedly are of this latter type. In many instances, the erythematous element is not pronounced; always, however, there is a tendency to periodicity. Sligh reports the case of a man of thirty-seven who had practically shed his entire skin every year since birth, the evidence of recurrence invariably showing on or about the same date. In all these cases, the symptoms disappear or are materially improved during the hot summer months, shedding coming on in the early fall, and continue till December or January. There is always the preliminary feeling of dryness of the skin, with some cracking.

The causes for such forms of erythema are many and often obscure. The autotoxemias —general or intestinal—undoubtedly are most frequently responsible. Septic infection may be a causative factor. Digestive derangements, the existence of a prolapsed and enlarged ovary, disturbance of the nerve centers, and so forth, have been deemed responsible.

The condition of the body-chemistry in this case should be definitely ascertained. We suggest that you send a specimen of urine (4 ounces from the 24-hour output, stating the total quantity voided), feces, and a blood smear to a competent pathologist. At the same time, doctor, make a very thorough physical examination, paying particular attention to the reflexes, condition of the pelvic organs, and so on, and report your findings in detail. Elimination—renal, dermal, and intestinal—the application to the skin of a mild antiseptic oil, and the administration of liquor arsenii compositus (Barclay), besides a good digestant (papain, gr. 1; pepsin, gr. 1; berberine, gr. 1-64), seemingly are indicated. A virile culture of the Bulgarian lactic-acid bacillus might also be given.

If you have access to Stelwagon's or other up to date work on diseases of the skin, study the chapters on erytheme hyperæmicum, erythema scarlatinoides, and so on.